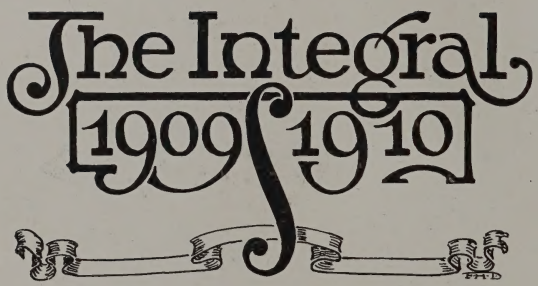
THE INTEGRAL

1911

THIS IS MY BOOK
1911


The Integral
1909 ∫ 1910

THE INTEGRAL

THE STUDENT ANNUAL OF

ARMOUR INSTITUTE OF TECHNOLOGY

CHICAGO, ILLINOIS

1911 INTEGRAL BOOK

PUBLISHED BY THE
Integral Board for the Junior Class of the
College of Engineering

VOLUME TWELVE NINETEEN HUNDRED AND TEN

DEDICATION

TO

LOLITA SPENCER ARMOUR

THIS VOLUME TWELVE OF THE INTEGRAL IS RESPECTFULLY DEDICATED

A. W. Elson & Co. Boston

GREETING

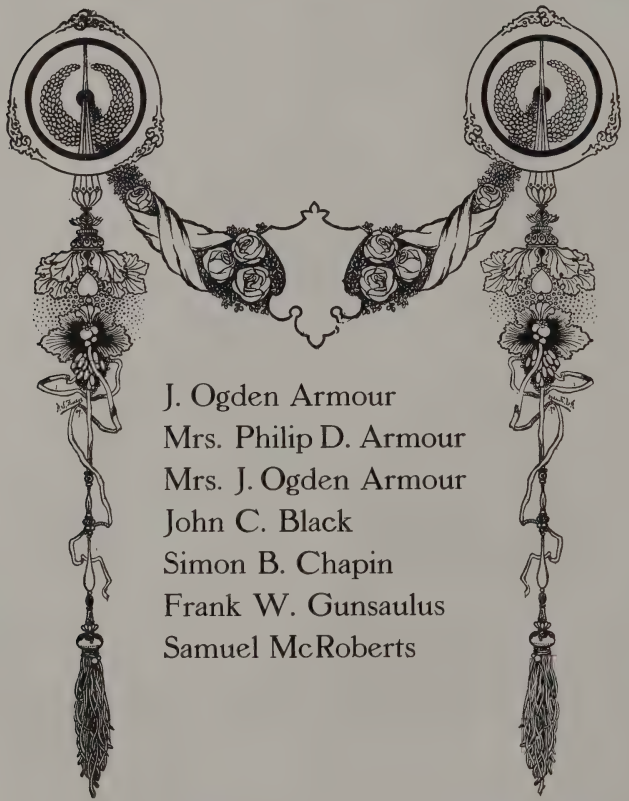
Even as the setting sun casts its mellow glow o'er the heaven reaching monuments of its passage, so may this book recall to you a few of those golden hours which forever link us to our ALMA MATER.

COPYRIGHT 1910
BY
SAMUEL ROBERT TODD
FOR
"CLASS OF 1910"
ARMOUR INSTITUTE OF TECHNOLOGY

The Institute
The Classes
The Fraternities
The Societies
The Functions
The Athlete
The Publications
The Night School
The Academy
The Statistician
The Jester
The Advertiser

THE INSTITUTE

BOARD OF TRUSTEES



J. Ogden Armour
Mrs. Philip D. Armour
Mrs. J. Ogden Armour
John C. Black
Simon B. Chapin
Frank W. Gunsaulus
Samuel McRoberts

J. Ogden Armour
Mrs. J. Ogden Armour
Mrs. P. D. Armour
S. B. Chapin
S. M. Roberts
John C. Black
F. W. Gunsaulus

Officers of Administration

The President
FRANK WAKELY GUNSAULUS

The Comptroller and Secretary
FREDERICK U. SMITH

The Dean of the Engineering Studies
HOWARD MONROE RAYMOND

The Dean of the Cultural Studies
LOUIS CELETIN MONIN

The Registrar
GEORGE F. DIETZ

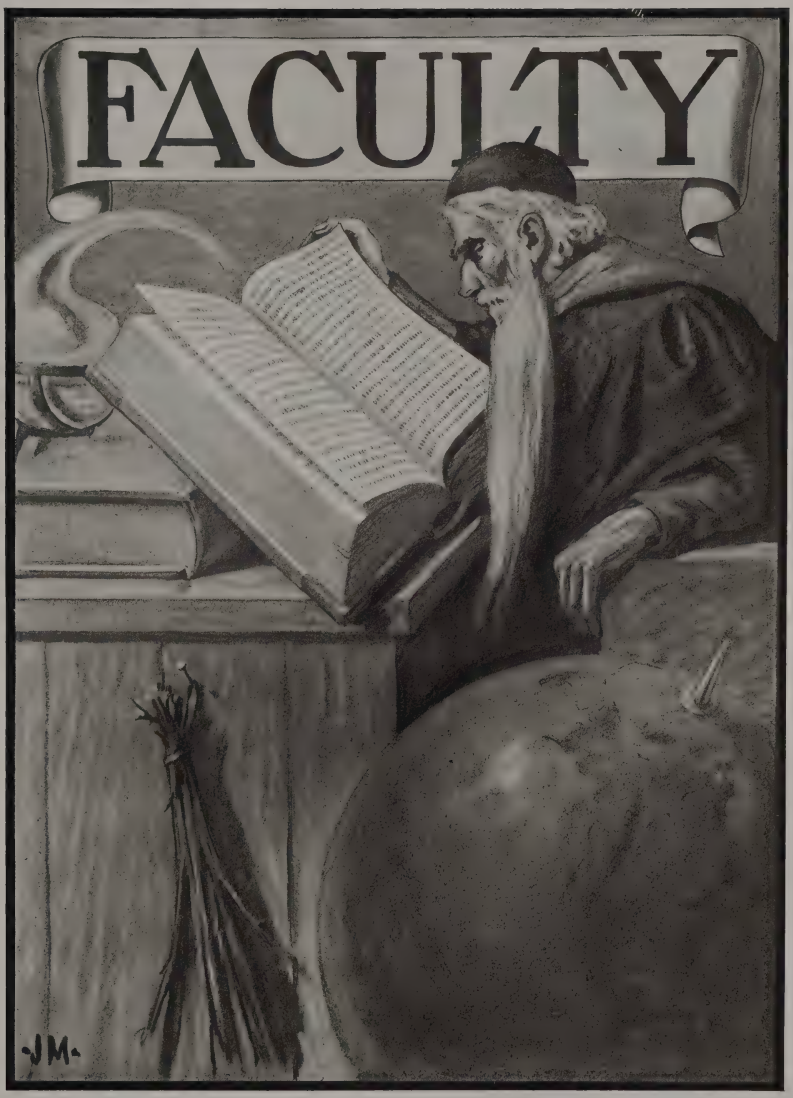
The Librarian
MRS. JULIA A. BEVERIDGE

Frank W Gunsaulus
Frederick O Smith
Louis C Monin
Mrs Julia Beveridge
Howard M Raymond

EXECUTIVE COUNCIL

H. M. RAYMOND L. C. MONIN

F. U. SMITH F. W. GUNSAULUS


FACULTY
JM

The President

FRANK WAKELY GUNSAULUS

Birthplace, Chesterfield, Ohio. A. M., Ohio Wesleyan University, 1875. D. D., Beloit College, 1895. LL. D., Ohio Wesleyan University, 1906. Beta Theta Pi. Member of American Social Science Society, Academy of Arts and Sciences, etc., etc. Author of "Phidias and Other Poems," "Songs of Night and Day," "Transfiguration of Christ," "Monk and Knight," "Life of William Ewart Gladstone," "Metamorphosis of a Creed," "November at Eastwood," "Loose Leaves of Song," "The Man of Galilee," "Paths to Power," "Higher Ministries of Recent English Poetry," and "Paths to the City of God." Residence, 5835 Monroe Avenue.

The Dean of the Cultural Studies

LOUIS CELESTIN MONIN

Birthplace, Berne, Switzerland. Universities of Leipzig and Zurich, 1878-1882. University of Heidelberg, 1886-1888. Ph. D., University of Lake Forest, 1891. National Secretary and Treasurer for Zofingia of Switzerland (Fraternity). President of the Department of Technical Education within the National Educational Association, 1907-1909. Member of National Educational Association, American Economic Association, American Socialogical Association, Western Philosophical Society, American Psychological Association, Society for the Promotion of Engineering Education, and Chicago Literary Club. Author of various papers and articles on Educational, Economic, Philosophical topics. Residence, 3250 Prairie Avenue.

The Dean of the Engineering Studies

HOWARD MONROE RAYMOND

Birthplace, Grass Lake, Michigan. B. S., University of Michigan, 1893. Postgraduate work in Physics and Electrical Engineering, University of Michigan, 1894. Phi Delta Theta. Tau Beta Pi. Member of the Society for the Promotion of Engineering Education, Western Society of Engineers, Associate Member, American Institute of Electrical Engineers, and American Association for the Advancement of Science. Residence, 6115 Kimbark Avenue.

ALFRED E. PHILLIPS

Professor of Civil Engineering

Birthplace, Rouse's Point, N. Y. A. B. and C. E., Union University, Schenectady, N. Y., 1887; A. M., 1890; Ph. D., 1894. Phi Delta Theta. Sigma Xi. Member of American Society of Civil Engineers. Residence, 1240 Morse Avenue.

GEORGE FREDERICK GEBHARDT

Professor of Mechanical Engineering

Birthplace, Salt Lake City, Utah. A. B., Knox College, 1895. M. E., Cornell University, 1896. A. M., Knox College, 1897. Phi Delta Theta. Member of the American Society of Mechanical Engineers; Western Society of Engineers; National Association of Stationary Engineers. Residence, 5329 Kimbark Avenue.

GEORGE LAWRENCE SCHERGER

Professor of History and Political Science

Birthplace, Lawrenceburg, Ind. A. B., University of Indiana, 1894. University of Leipszig, University of Berlin. Ph. D., Cornell University, 1899. Member of North Central History Teachers' Association and American Historical Association. Author of "Evolution of Modern Liberty." Residence, 6727 Perry Avenue.

GUY MAURICE WILCOX

Professor of Physics

Birthplace, Kansas City, Kansas. A. B., Carleton College, 1891. A. M., University of Wisconsin, 1902. Fellow of the American Association for the Advancement of Science; American Physical Society. Research work on Optical Properties of Solutions. Residence, 5225 Ingleside Avenue.

DONALD FRANCIS CAMPBELL

Professor of Mathematics

Birthplace, Nova Scotia. B. A., Dalhousie College, Halifax, Nova Scotia, 1890. B. A., Harvard University, 1893; M. A., 1895; Ph. D., 1898. Member of American Mathematical Society. Author of "The Elements of Differential and Integral Calculus," "A Short Course on Differential Equations," and other text books and mathematical papers. Residence, 1134 Oak Avenue, Evanston, Illinois.

FITZHUGH TAYLOR

Professor of Fire Protection Engineering

Birthplace, Illinois. B. S., Armour Institute of Technology, 1900. Member of National Fire Protection Association and Chicago Literary Club. Residence, 4402 Greenwood Avenue.

HENRY BASCOM THOMAS

Professor, Director of Physical Culture, Medical Adviser

Birthplace, Elk Garden, V. B. S., University of Chicago, 1899. M. D., Northwestern Medical School, 1903. Student K. K., Allgemeines Krankenhaus, Vienna, Austria. Member Attendnig Staff Cook County and Wesley Hospitals, Home for Destitute Crippled Children. Orthopedic Surgeon, Provident Hospital. Instructor Orthopedic Surgery, N. W. U. Medical School. Kappa Sigma, Phi Rho Sigma. Member Medical Association, Illinois State and Chicago Medical Societies, Medical School Supervisor, City of Chicago. Residence, 6530 Lexington Avenue.

WALTER F. SHATTUCK

Professor of Architecture

Birthplace, Champaign, Illinois. B. S., University of Illinois, 1891. Member of Chicago Architectural Club. Residence, 4743 Kenwood Avenue.

HARRY McCORMACK

Professor of Chemical Engineering

Birthplace, Spencer, Iowa. B. S., Drake University, Des Moines, Iowa, 1896. M. S., University of Illinois, 1899. Member of American Chemical Society, American Society of Testing Materials and of American Electro-Chemical Society. Author of, Bulletin U. S. Department of Agriculture on Losses in Cooking Meat; Chemical Study of Water Supply of Des Moines; Chemistry of Iowa Building Stone; Chemical Study of Melting Iron in the Foundry Cupola; Radiation Losses from a Foundry Cupola; A Laboratory Course in Industrial Chemistry; Extracting Sugar from Dried Beet Cossettes. Residence, 5229 Ingleside Avenue.

ERNEST HARRISON FREEMAN

Professor of Electrical Engineering

Birthplace, Topeka, Kansas. B. S., Kansas State Agricultural College, 1895. Kansas State Normal School, 1897. B. S., Armour Institute of Technology, 1902;E. E., 1905. Residence, 7026 South Park Avenue.

JOHN EDWIN SNOW

Associate Professor of Electrical Engineering

Birthplace, Athens, Ohio. B. S., Ohio University, 1892; M. S., 1896; E. E., Armour Institute of Technology, 1901; A. M., Ohio University, 1904; Local Secretary of the Armour Institute of Technology. Branch of the American Institute of Electrical Engineers: Author of "Senior Dynamo Laboratory Manual." Residence, 501 East 60th Street.

MELVILLE BAKER WELLS

Associate Professor of Bridge and Structural Engineering

Birthplace, Comiskey, Indiana. B. S., Purdue University, 1894; C. E., 1895. Phi Delta Theta. Tau Beta Pi. Member of Western Society of Engineers. Residence, 8222 East End Avenue.

ROBERT VALLETTE PERY

Associate Professor of Machine Design

Birthplace, Hartford, Connecticut. B. S., Armour Institute of Technology, 1897; M. E., 1901. Tau Beta Pi. Residence, 436 West 66th Street.

THOMAS EATON DOUBT

Associate Professor of Physics

Birthplace, Louisville, Kentucky. B. S., Nebraska Wesleyan University, 1892. M. A., University of Nebraska, 1896. Ph. D., University of Chicago, 1904. Fellow in Physics, University of Nebraska, 1894-7. Fellow in Physics, University of Chicago. Sigma Xi. Fellow of the American Association for the Advancement of Science. Member of the American Physical Society. Research work on Effect of Intensity upon Velocity of Light and on the Determination of the Absolute Color Equation of White Light. Residence, 5402 Drexel Avenue.

CHARLES WILBUR LEIGH

Associate Professor of Mathematics

Birthplace, Peoria, Illinois. B. S., University of Illinois, 1887. University of Chicago, Phi Gamma Delta. Author of Text Books on Solid Geometry and Trigonometry. Residence, 7320 La Fayette Avenue.

JOSEPH B. FINNEGAN

Associate Professor of Fire Protection, Engineering

Birthplace, Stoneham, Massachusetts. S. B., Massachusetts Institute of Technology, 1904. Member of National Fire Protection Association. Residence, 114 East 50th Street.

ARTHUR J. FRITH

Associate Professor of Experimental Engineering

Birthplace, Philadelphia, Pennsylvania. Graduate of Rennselaer Polytechnic Institute, Troy, N. Y. Member of the American Society of Mechanical Engineers. Assistant Professor of Mechanical Engineering, Lehigh University. Assistant Chief Engineer Diesel Engine Co. Residence, 58 East 36th Place.

CHARLES EDWARD PAUL

Associate Professor of Mechanics

Birthplace, Belfast, Maine. S. B., Massachusetts Institute of Technology, Theta Xi, American Society of Mechanical Engineers, American Society for Testing Materials, and Society for the Promotion of Engineering Education. Original Research on Chimney Drafts, and Strength of Materials. Residence, 6355 Ingleside Avenue.

DAVID PENN MORETON

Associate Professor of Electrical Engineering

Birthplace, Moscow, Ohio. Ohio State University, ('01-'02) and ('02-'03). B. S., Armour Institute of Technology, 1906. Member Society for the Promotion of Engineering Education. Tau Beta Pi. Residence, 56 West 34th Street.

BENJAMIN BALL FREUD

Associate Professor of Analytical and Organic Chemistry

Birthplace, Chicago, Illinois. B. S., University of Chicago, 1904. Graduate Student of Chicago University. Phi Beta Kappa. Sigma Xi. Member American Chemical Society. Research Work in Organic Chemistry. Physio-organic research on the "salt-effect" in catalysis. Residence, 2519 North Spaulding Avenue.

WALTER KAY SMART

Associate Professor of English

Birthplace, Payson, Illinois. Shurtleff College and Northwestern University. Ph. B., University of Chicago, 1902. Residence, 1122 East 54th Place.

HARRY CLAY COFFEEN

Assistant Professor of Machine Design

Birthplace, Champaign, Illinois. B. S., University of Illinois, 1898; M. S., 1899. University of Pennsylvania. Phi Gamma Delta. Tau Beta Pi. Residence, 4009 Lake Avenue.

A. RAYMOND ZORN

Assistant Professor of Modern Languages

Birthplace, Brooklyn, N. Y. A. B., Dennison University, 1899. Post Graduate Student, University of Chicago, 1899-1900. University of Marburg, Germany, 1901. Residence, 6621 Stewart Avenue.

HENRY L. NACHMAN

Assistant Professor of Kinematics and Machine Design

Birthplace, Sommerfield, Germany. B. S., Armour Institute of Technology, 1902; M. E., 1906. Tau Beta Pi. Residence, 115 East 58th Street.

OLIVER CHARLES CLIFFORD

Assistant Professor of Electrical Engineering

Birthplace, Wadsworth, Ohio. A. B., Oberlin College, 1893. Cornell University, University of Pennsylvania, and Ph. D., University of Chicago, 1907. Sigma Chi. Member of the American Society of Mechanical Engineers. Residence, 6020 Monroe Avenue.

HERBERT J. ARMSTRONG

Assistant Professor of Railway Engineering

Birthplace, Sunderland, Massachusetts. B. S., Massachusetts Agricultural College, 1897. Phi Sigma Kappa. Member of American Railway Engineering and Maintenance of Way Association. Residence, 11337 Crescent Avenue, Morgan Park, Illinois.

ALEXANDER PELL

Assistant Professor of Mathematics

Birthplace, Moscow, Russia. Ph. D., John Hopkins University; Phi Beta Kappa. Author of Memoirs on Differential Geometry in American Journal of Mathematics and in Transactions of American Mathematical Society. Residence, 3427 South Park Avenue.

WILLIAM E. BARROWS, Jr.

Assistant Professor in Electrical Engineering

Birthplace, Sudlow, Vermont. B. S., University of Maine, 1902; E. E., 1908. Member American Institute of Electrical Engineers; Illuminating Engineering Society; and Society for the Advancement of Engineering Education. Author of "Electrical Illuminating Engineering. Beta Theta Pi. Residence, 3348 Indiana Avenue.

CHARLES AUSTIN TIBBALS, Jr.

Assistant Professor of Chemistry

Birthplace, New York. Columbia University; A. B., University of Wisconsin, 1904; A. M., 1906; Ph. D., 1908. Phi Gamma Delta, Phi Lambda Upsilon, and Sigma Xi. American Chemical Society and American Association for the Advancement of Science. Original research, A Study of Tellurides. Residence, 5203 Woodlawn Avenue.

CLAUD IRWIN PALMER

Assistant Professor of Mathematics

Birthplace, Michigan. A. B., University of Michigan, 1903. University of Chicago. Member of the American Association for the Advancement of Science, and the National Society for the Promotion of Industrial Education. Residence, 4346 Champlain Avenue.

ARTHUR H. ANDERSON

Assistant Professor in Experimental Engineering

Birthplace, Chicago, Illinois. B. S., Armour Institute of Technology, 1902; M. E., 1907. Residence, 6826 Wayne Avenue, Rogers Park, Illinois.

CHARLES HERRICK HAMMOND

Instructor in Architecture

Birthplace, Crown Point, N. Y. B. S., Armour Institute of Technology, 1904. Chicago Architectural Club Traveling Scholarship, 1905. Radical X. Member Chicago Architectural Club. Residence, 4627 Greenwood Avenue.

C. B. COOPER
Assistant Professor of English
Birthplace, Prairie City, Illinois. A. M.

MRS. JULIA A. BEVERIDGE
Librarian and Instructor in Bibliography
Birthplace, Beloit, Wisconsin. Residence, 3901 Lake Avenue.

EDWARD D. AGLE
Superintendent of Shops and Instructor in Machine Tool Work
Birthplace, Grencastle, Pa. Residence, 635 East 41st Street.

MISS CARRIE WRIGHT
Instructor in Latin and Modern and Mediaeval History
Birthplace, Dublin, Ohio. Ph. B., Ohio State University, 1892. Kappa Kappa Gamma. Residence, 562 Oakwood Boulevard.

WILLIAM W. MANNING

Instructor in English

Birthplace, St. Louis, Missouri. Residence, 39 West 33rd Street.

HELEN F. PAGE

Instructor in English

Birthplace, Dedham, Massachusetts. Massachusetts Normal School, Harvard University, and University of Chicago. Author of "A Manual of Fractions." Residence, 4003 Ellis Avenue.

WILLIAM FREDERICK DIETZSCH

Instructor in Experimental Engineering

Birthplace, Chicago, Illinois. M. E., Royal Polytechnic College, Stuttgart, Germany, 1901. Residence, 1292 Wilton Avenue.

EDWIN S. LIBBY

Instructor in Experimental Engineering

Birthplace, Portland, Maine. B. S., Armour Institute of Tehcnology, 1902; M. E., 1907. Tau Beta Pi. Residence, 7223 Union Avenue.

NELS P. PETERSON

Instructor in Wood Working

Birthplace, Hoganas, Sweden. Residence, 2112 North Humbolt Street.

WILLIAM GRISWOLD SMITH

Instructor in Descriptive Geometry and Kinematics

Birthplace, Toledo, Ohio. M. E., Cornell University, 1892. Delta Kappa Epsilon. Residence, 6758 Perry Avenue.

JOHN E. LIND

Instructor in Mathematics

Birthplace, Chicago, Illinois. A. B., Amherst College, 1898. A. M., Harvard University, 1901. Graduate Student of the University of Chicago, 1901-1903. Residence, 3617 Lake Avenue.

WILLIAM FRANKLIN WILLARD

Instructor in Freehand and Mechanical Drawing

Birthplace, Sabillasville, Maryland. University of Illinois; Bradley Polytechnic Institute; University of Chicago. Residence, 3812 Indiana Avenue.

CHARLES F. HAGENOW

Instructor in Physics

Birthplace, Germany. B. S., University of Nebraska, 1900; A. M., 1906. Sigma Xi. Residence, 1120 East 54th Place.

JOHN SIMPSON REID

Instructor in Mechanical Drawing and Machine Design

Birthplace, Kilmanock, Ayrshire, Scotland. Irvine College, British Government Science and Art Schools, Glasglow, Scotland. Member of American Society of Mechanical Engineers. Author of "A Course in Mechanical Drawing," and "Machine Drawing and Elementary Machine Design." Residence, 43 33rd Street.

J. G. H. LAMPADIUS

Instructor in German

Birthplace, Leipzig, Germany. University of Leipzig, 1884-1885. A. B., University of Southern California, A. M., University of Chicago, 1900. A. M., University of Southern California, 1902. University of Oklahoma, 1904. Residence, 36 West 73rd Street.

CHARLES H. FORNHOF

Instructor in Machine Tool Work

Birthplace, Chicago, Illinois. Residence, 1255 Winona Street.

GEORGE EVERETT MARSH

Instructor in Electrical Engineering

Birthplace, Georgetown, Colorado. Sc. B., Massachusetts Institute of Technology, 1902. Member of American Institute of Electrical Engineers, American Electro-chemical Society, Illuminating Society, American Fern Society, Microscopical Society, and Hertzian Society. Papers on Algebraic Equations of Lissajous's Curves of All Orders, New Theorems in Combinations, High Potential Interrupter, Machines for describing Curves, etc. Residence, 3000 Michigan Avenue.

JAMES CLINTON PEEBLES

Instructor in Experimental Engineering

Birthplace, Dreghorn, Scotland. B. S., Armour Institute of Technology, 1904; E. E., 1908. M. M. E., Cornell University, 1908. Gamma Alpha, Tau Beta Pi, and Sigma Xi. Original research, An Oscillograph Study of Commutation. Residence, 6542 Stewart Avenue.

ALBERT J. WILLIS

Instructor in Civil Engineering

Birthplace, Fairton, New Jersey. C. E., Lehigh University. Tau Beta Pi. Junior Member of the American Society of Civil Engineers. Residence, 3548 Forest Avenue.

PERRY A. BOND

Instructor in Chemistry

Birthplace, Storm Lake, Iowa. B. S., State University of Iowa, 1901; M. S., 1908. Sigma Xi. Original Research, The Effect of the Proximity of Negative Groups on the Oxidation of the Hydro-Carbon Side Chain to the Benzene Nucleus. Residence, 3340 Dearborn Avenue.

CHARLES EDWARD BOUTWOOD

Instructor in Freehand Drawing

Birthplace, London, England. Studied in South Kensington Museum. Scholarship Royal Academy School, London. Studied in Paris under Bouguereau and Fleury. Member of Chicago Society of Artists. Residence, Hinsdale, Illinois.

FRANK HALL CHILDS

Instructor in Business Law

Birthplace, Findlay, Ohio. Columbia University, Union College of Law, Kent Law School. LL. B. Admitted to Bar in 1884. Author of Childs on Suretyship and Guaranty and of Ewell on Fixtures. Residence, 2241 Calumet Avenue.

JAMES PIERCE CUNNINGHAM

Instructor in Forging

Birthplace, Zanesville, Ohio. Residence, 10134 Avenue LG., South Chicago.

ROBERT C. OSTERGREN

Instructor in Architectual Drawing

Birthplace, Stockholm, Sweden. B. S., Armour Institute of Technology, 1908. Tau Beta Pi. Residence, 2939 Vernon Avenue, Chicago, Illinois.

EUGENE EDWARD GILL

Instructor in General Chemistry

Birthplace, Boring, Md. Ph. B., Dickinson College, 1897; A. M., 1898. Ph. D., Johns Hopkins University, 1909. Phi Beta Kappa. Research "Determination of Osmotic Pressure of Cane Sugar Solutions at 5° C. Member American Chemical Society. Residence, 5539 Drexel Avenue.

EARLE WATSON McMULLEN

Instructor in Metallurgy and Industrial Chemistry

Birthplace, Picton, Ont., Canada. Picton High School, 1902; Armour Scientific Academy, 1906; B. S., Chemical Engineering Armour Institute of Technology, 1909. Tau Beta Pi. Member American Chemical Society. Sphinx Society. Research on Manufacture of Sugar. Residence, 6221 Kimbark Avenue.

STANLEY DEAN

Instructor in Civil Engineering

Birthplace, Manchester, England. Washington University, St. Louis, Mo., 1901-1903. B. S., Armour Institute of Technology, 1905. Beta Theta Pi.

THOMAS E. TALLMADGE

Special Lecturer on Architecture

Birthplace, Washington, D. C. D. S., Massachusetts Institute of Technology, 1898. Winner of Chicago Architectural Traveling Scholarship, 1904. Phi Beta Epsilon. Member of the Chicago Architectural Club and of the University Club. Address, 1004 Security Building.

CHARLES L. LARSON

Instructor in Founding

Birthplace, Chicago, Illinois. Residence, 1135 North Sacremento Avenue.

ASSISTANTS

Record Clerk	Jane L. Forrest
Assistant to Registrar	Emma J. Turck
Assistant in Registrar's Office	Robert Martin
Stenographer in Office of Comptroller	B. Black
Assistant in Gymnasium	Thomas Freeman Cornell
Second Assistant in Gymnasium	G. H. Bartholomew
Curator of Chemical Laboratories	Alfred Ernest Dean
Assistant to Curator	Wm. Lumb
Assistant in the Office of the President	Charles Stridiron
Assistant in the Office of the Deans	Ernest Kelly
Stenographer in Mechanical Department	J. T. Gilpin
Stenographer in Chemical and Electrical Department	Bert Birdzell
Chief Engineer of Power Plant	John Allen
Assistant Engineer	Hoke Dewey
Chief Electrician	C. D. Bowman
Mechanician	A. De Khotinsky
Mechanician	Louis Falk
Mechanician	J. O. Blachford
Assisant in Mechanical Laboratories	C. Kelly
Assistant in Foundry	Chester Davis
Assistant in Pattern Shop	Neil M. Thomson
Assistant in Electrical Laboratories	O. E. Crain

In Memoriam

The sudden death of our dear friend George F. Dietz, on March 21, 1910, came as a great blow to the students and faculty of Armour Institute of Technology. Mr. Dietz had long been a familiar and greatly esteemed figure about the Institute, and his lamentable death was a loss keenly felt by all. He first became active in the affairs of the Institute in 1895 as assistant to the registrar. In 1896 he became registrar, succeeding Mrs. Beveridge, and held this office up to the time of his death. For more than fifteen years, Mr. Dietz has labored in the interests of Armour Institute, and it is with hearts full of sorrow and deepest regret that we relinquish our claims upon such a noble character.

GEORGE F. DIETZ

MRS. JULIA A. BEVERIDGE
LIBRARIAN

The Library

The Library contains more than 25,000 volumes and 2,500 pamphlets, 150 periodicals are subscribed and kept on file and bound. It is primarily a reference library for Engineering Students, but it also has works in Science, History, Literature, Philosophy and Economics.

It is open daily from 8 A. M. to 5 P. M. and Monday, Tuesday, Thursday and Friday during the session of the Evening Classes from 7:00 to 9:30 P. M.

Direct Access to the shelves of the library is allowed the students in order that they may better familiarize themselves with the use of the Library.

History

ALTHOUGH Armour Institute has been in existence only a short time it has a very remarkable and interesting history.

When Mr. Joseph Armour died he left a bequest of one hundred thousand dollars for the purpose of building a Mission in Chicago for church, school, and educational purposes. To this his brother, Philip Danforth Armour, added a large sum to complete and outfit the building. The building was opened in 1886. Ever ready to help those who wished to help themselves, Mr. Armour built at various times several large flat buildings in the neighborhood of the Mission, the revenue from which served to make it as far as possible self-sustaining. To the religious work, a free dispensary and library were added, the latter in charge of Mrs. Julia A. Beveridge, the present librarian of the Institute.

Mrs. Beveridge, believing that the usefulness of the Mission might be increased by taking up manual training, organized classes in wood-carving, clay-modeling, tile-making, and drawing for boys, and classes in domestic arts for girls. The success of her endeavors so pleased Mr. Armour that he decided to take up the educational work on a still larger scale than the size of the Mission would permit. Accompanied by Dr. Gunsaulus and Mr. John C. Black, Mr. Armour visited eastern institutions and, on his return to Chicago, decided to organize a school similar to Pratt or Drexel Institute.

"Of all studies, study your present condition."

A board of Trustees was organized, consisting of the following:—Mr. Philip D. Armour, Mr. J. Ogden Armour, Mr. William J. Campbell, Mr. Philip D. Armour, Jr. and Mr. John C. Black. A character was obtained from the state government and in 1892 the present "main building" was erected. The first classes were organized in 1893.

Dr. Gunsaulus, President, was assisted by a small, very efficient faculty, of which Prof. L. C. Moline, Miss Carrie Wright, Mrs. Julia A. Beveridge, Mr. John E. Snow, Prof. L. C. Moin, Miss Carrie Wright, Mrs. Julia A. Beveridge, Mr. John E. Snow, and Mr. Edward D. Agle are associated with the Institute. At the time of its founda-

tion the Institution comprised the Armour Scientific Academy and the Technical College, as at present, and also Departments of Domestic Arts, Commerce, Music, and Kindergarten Normal Training.

The courses included in the Technical College were:—Mechanical and Electrical Engineering, Chemistry, Architecture, and Library Science. Between 1896 and 1901, the courses in Domestic Arts, Commerce and Music were dropped one by one to meet the ever increasing demand for young men trained in applied science. In 1901 co-education in the Academy was given up, so that the instruction is limited to young men. All the engineering courses have strengthened from year to year. Departments of Chemical Engineering and Fire Protection Engineering have been added to the other engineering departments.

Since 1902, Evening Classes and Summer Courses have been offered and much good has been derived from these.

An additional building known as Machinery Hall was erected in 1902, Mrs. P. D. Armour having donated the building, while Mr. J. Ogden Armour bore the ex-

PHYSICS LABORATORY

LATHES IN WOOD SHOP

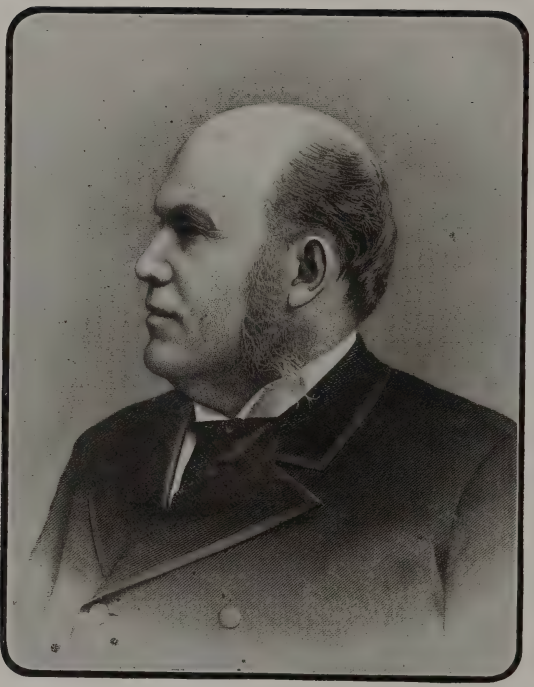
THE FOUNDRY

pense of providing equipment. Mr. J. Ogden Armour also presented to the Institute the ground known as Ogden Field, the opening of which greatly stimulated the interest in athletics at Armour. The latest addition to the buildings of the Institute is Chapin Hall. The student club known as Chapin Club has rooms in this building.

During the summer of 1909, a fire ocurred on the third floor of the "main building" in the store-room of the Chemical Department. Quite a loss was suffered, but was fully covered by insurance. The store-room was immediately rebuilt and is now very much better than ever.

Located in the great metropolis of the West, the Institute offers to its students opportunities of acquiring a practical training in engineering which would be impossible in almost any other locality. We have all reason to be proud of the remarkable progress made the Armour Institute of Technology within so short a period of time. The fame of the Institute and her graduates is being heard of every day all over the world as the graduates have gone to every state of the Union and many foreign countries.

"To be trusted is a greater compliment than to be loved."



PHILIP D. ARMOUR

JAPANESE SWORD GUARDS

Among the Japanese the sword was held as an object of respect and honor and symbolized the ideals of the race. Unlike the early swords of the Chinese and Europeans, the guards of which were wrought into the blade, the Japanese sword guards were distinct pieces of metal.

These guards, technically known as tsuba, varied in size, composition, and ornamentation, with the historic periods of the nation. The primary object of the sword guard was to protect the hand, but it also came to be an ornament and, in fact, an indication of the wearer's personality. The tsuba was usually made with from one to three holes. The largest for slipping it on over the blade and one of the small one for carrying an auxilliary small blade. This small blade was left sticking in the vanquished foe by the victor, to signify who had done the deed and as a challenge to all who might question his right.

The guards were made of alloys of all metals and were beautifully worked in gold and silver. On each face a favorite legend of the wearer was portrayed. At the present time Dr. Gunsaulus' famous collection of sword guards is on exhibition in the Institute library. The ten illustrated on the opposite page are notable examples of the collection.

"Education begins a gentleman, conversation completes him."

Steel guard, in the shape of a square with round corners. Made in the thirteenth century.

Iron guard made in the fourteenth century. Inlaid with gold and representing frost.

Iron guard representing snow and an umbrella. Made in the sixteenth century.

Steel guard representing the chrysanthemum. Made in the seventeenth century.

Steel guard inlaid with metal giving the surface the appearance of cloth. Butterflies are in evidence on each side. Made in the seventeenth century.

Steel guard of the eighteenth century. Represents rice stem with grains of rice.

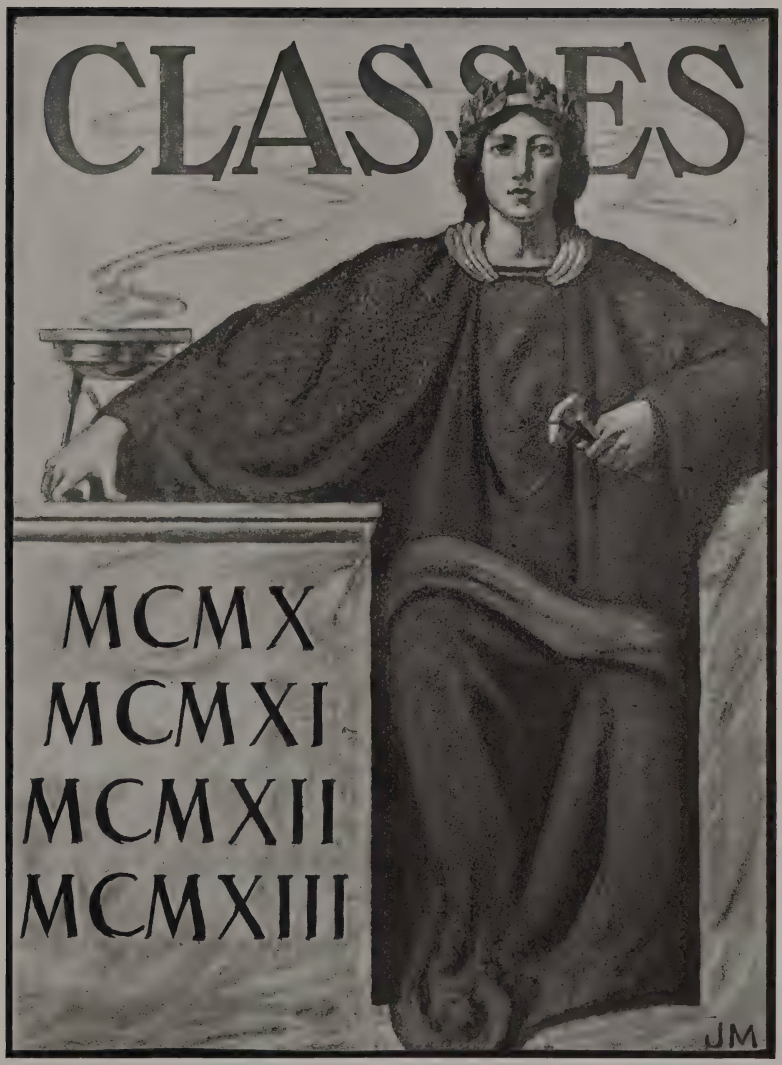
A silver guard, made in the nineteenth century, representing two carps, the symbol of courage and progress.

A copper and gold alloy guard made in the nineteenth century. Obverse represents Usiwaka fighting with priest warrior on the Gojo bridge.

Guard made of brass alloy. Observe represents crane flying. Reverse, sparrow-rattle in rice field.

Very elaborate gold alloy guard of the nineteenth century, representing Jadamon dragging the old priest in the rain. Reverse represents the bronze lamp in the rain storm.

"Who is too old to learn is too old to teach."


CLASSES
MCMX
MCMXI
MCMXII
MCMXIII
JM

The College of Engineering

OF

Armour Institute of Technology

33rd Street and Armour Avenue

Chicago, Illinois

Founded 1892

by

PHILIP DANFORTH ARMOUR

Colors: Yellow and Black

YELL

Arch. Mech.
Civ. Elec.
Rah. Rah.
Armour Tech.

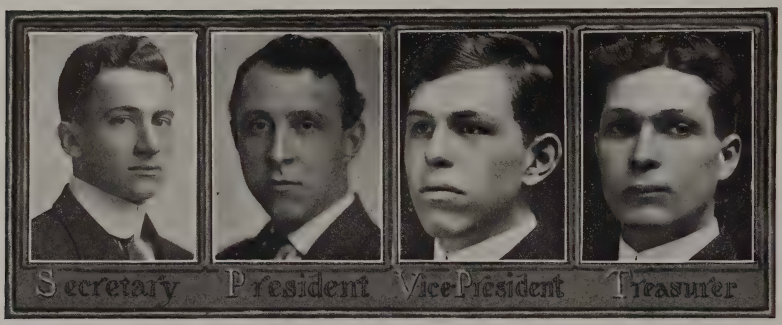
SENIORS
JM

The Class

OF

Nineteen Hundred and Ten

Seniors



CLARENCE C. BAILEY MONROE A. SMITH J. N. BOUGHMAN F. E. WEBNICK

Colors: Blue and White

YELL

On the deck!
Once again!
Armour Tech.!
Nineteen Ten!

INTEGRAL REPRESENTATIVES

M. A. Smith E. Mac Ewing

SOCIAL COMMITTEE

W. E. Thomas S. W. McCune, Jr. O. L. Richards

Members of the Senior Class

STUDENTS IN ELECTRICAL ENGINEERING

Baer, Walter
Bailey, Clarence C.
Bremers, Jr., Henry J.
Calvin, Reed
Chapman, Jr., Alfred B.
Godfrey, F. Ozro
Kallis, Maurice
Richards, O. L.
McCune, Jr., S. W.
MacEwing, Eugene D.
Moyses, H. E.
Neville, W. J.
Ruede, Eugene M.
Sherwin, E. B.
Thatcher, W. C.
Whitmore, Roy
Zeislar, L.

STUDENTS IN CIVIL ENGINEERING

Anderson, A. G.
Buck, Glen W.
Clarkson, Jr., Wm.
Cole, V. E.
Deveney, Wm. J.
Eckert, John M.
Eliel, R. G.
Guthier, R. E.
Hand, Henry C.
Jens, W. G.
Kellmer, W. G.
Kolnan, R. S.
Letterman, G. D.
Munoz, Frederick J.
Pearce, R. P.
Reynolds, J. C.
Smith, Monroe A.
Vynne, Eustace

STUDENTS IN MECHANICAL ENGINEERING

Baughman, I. N.
Bergbom, A. L.
Bolte, E. E.
Carlson, H. W.
Crocker, A. H.
Gentry, T. T.
Grenoble, H. S.
Hatman, Julius C.
Henwood, Proctor E.
Hoffman, R. J.
Leavell, R. A.
Thomas, W. E.
Wernicke, F. E.
Young, D. A.

STUDENTS IN ARCHITECTURE

Bowman, D. W.
Clark, Leslie D.
Gunten, Tillman von
Howenstein, W. K.
Livermore, Joseph D.
Pashley, E. S.
Steigely, Arthur C.
Salisbury, Robert H.

STUDENTS IN CHEMICAL ENGINEERING

Martin, Herbert W.
Pohlman, E. F.
Starmann
Squair, Francis R.

STUDENTS IN FIRE PROTECTION ENGINEERING

Hotchkin, E. W.
Pfaelzer, F. M.

WALTER JOSEPH BAER

E. E.
Hydro-Electric Developement on Snake River at Ox Bow Bend, Idaho.
Born, January 7, 1889, Chicago, Ill.
Prepared at Wendell Phillips High School.
A. I. E. E.

Walter Joseph, consulting engineer, well mebbe that is a little previous, but then, who can tell, isn't he already a member of the firm of Baer, Rosenthal & Godfrey, and they will undertake anything from assisting indifferent civils through electricity to running motors without a field. But on the whole he is a good fellow and mighty accomodating.

CLARENCE CLAUDE BAILEY

E. E.
Raton Mountain Electrification Project, A. T. & S. F. R. R.
Born, December 3, 1886, Aurora, Ill.
Prepared at Newton, Kansas High School.
Delta Tau Delta, Tau Beta Pi, Eta Kappa Nu.
A. I. E. E. Radical X.
Head Marshall, Junior Week 1909, Class Secretary, '09-'10.

Some people say that Bailey is Vynne's only rival as a perambulating jewelry shop, and we are inclined to believe that he has more insignia of his own than any one else in school. But then Bailey has acquired this all rightfully and ought to be proud to wear 'em.

ISAAC NEWTON BAUGHMAN

M. E.
An efficiency test of a Low Head Water Wheel Installation.
Born, December 19, 1888, Marseilles, Ill.
Omega Lambda. A. S. M. E.
Prepared at Culver Military Academy.

What a happy thought to name a future engineer "Isaac Newton." Baughman's parents forgot to put "Sir" on the forward end of his handle, but Ike's "Sir" to a professor leaves no doubt as to his title of the name. Baughman is quite a fellow. He has the distinction of being the only officer of the senior class who does not belong to Tau Beta Pi.

ARTHUR A. BYERS

M. E.
Efficiency of Sterling Boiler With Change of Speed and Depth of Fuel.
Born, August 17, 1887, Madison, Wis.
Prepared at Armour Academy, 1906.
Glee Club, 1910. Mechanical Society.

Byers is one of those few who have gone through the Academy and the College without in some way picking up a nickname, to be used around 33rd Street and the tracks.

ARTHUR L. S. BERGBOM

M. E.

Effect of Varying Compression on the Efficiency of a Fairbanks Morse Horizontal Gas Engine.

Born, November 18, 1886, Chicago, Ill.

Prepared at R. T. Crane.

A. S. M. E.

Glee and Mandolin Club, '06-'07-'08-'09-'10.

Bergbom or "Bergy" as we like to call him, likes to tease strains from a piano. Art is "some" musician and also quite adept at making Bob Hoffman work on his thesis.

E. ENDICOTT BOLTE

M. E.

A study of Friction in the Waugh Draft Gear.

Born, June 13, 1888, Chicago, Ill.

Prepared at Chicago Manual Training School.

Phi Kappa Sigma.

Radical X, Sphinx, A. S. M. E.

Editor-in-chief of The Fulcrum, '09-'10.

Managing Editor, '08-'09.

Athletic Editor, '07-'08.

President of Sphinx, '09-'10.

Executive Committee, '08-'09-'10.

Junior Week Committee.

Where any one says Bolte you just have to think Fulcrum. For three years Bolte has lived in the Fulcrum office, and much to the struggling journal's good. We have seen the paper rise under his guidance from the mediocre to its present standard of excellence.

HENRY JOHN BREMERS, Jr.

E. E.

The Series Tungsten as a Secondary Standard.

Born, September 18, 1887, Fremont, Neb.

Prepared at Fremont High School.

Nebraska Club, Mandolin Club, Freshman Bowling Team.

Hank first blew out a fuse in Fremont, Neb., on September 18, 1887. He clung to that berg for quite a while, and is remembered at the Tech. as having worked for a brewery.

F. O. GODFREY

E. E.

Hydro-Electric Development on Snake Rive at Ox Bow Bend, Idaho.

Born, March 6, 1889, Battle Creek, Mich.

A. I. E. E.

This studious little stude simply studied his stupendous way through his studies (sometimes). Perhaps he is used to living on dry things since he was born at Battle Creek. Although he may look that way, he's right there when the bunch goes to a banquet, or a show, or ditches a class.

GLENN WARNER BUCK

C. E.

Proposed Water Power Development on East Canada Creek at Ingham Falls, N. Y.

Born, February 21, 1888, Shopiere, Wis.

Prepared at Englewood High School and New London High School.

Phi Kappa Sigma. Radical X. Civil Society. Executive Committee, '06-'07. Vice-president of class, '08-'09. Chairman Junior Radies, '08-'09. Member of Class Baseball Team, '06-'07-'08-'09. Member of Class Bowling Team, '08-'09.

Buck—just Buck, that is what we call him. Some people try to call this bundle of good looks, good humor and frankness "Glen" and "Jimmy," but he is Buck and proud of it.

REED CALVIN

E. E.

Reed is one of our best little electricals. At the last minute he was almost left out of the book, but we managed to at least get his name and picture. Unless we greatly mistake, Calvin will prove to be some engineer when thrust out upon the world.

HARRY WILLIAM CARLSON

M. E.

The Pitot Tube as a Steam Meter.

Born, May 25, 1886, Chicago, Ill.

Prepared at Chicago English High School and Manual Training School.

Tau Beta Pi, A. S. M. E., Sphinx, Y. M. C. A.

Class Executive Committee, '08-'09-'10.

President of Y. M. C. A., '09.

Editor-in-chief of Armour Engineer, '09-'10.

Freshman Smoker Committee, '09-'10.

Peculiar thing don't you think, that the last three honor men to be elected to Tau Beta Pi should be Swedes. Carly was one of the three, the middle one to be exact, and he has always lived up to the title.

ALFRED B. CHAPMAN, Jr.

E. E.

The Series Tungsten as a Secondary Standard.

Born, December 1st, 1888, St. Louis, Mo.

Prepared at St. Louis Central High School.

Kappa Sigma.

Chapman is another one of those gentlemen who decided to spend his first and last year with us. We don't know when, or how, he made the decision, but we are all glad he came. He is one of those quiet, industrious students who still have a little time for their fellows. This brand is one our class could well have more of, but as is usual with all good things this variety of man is few and far between.

LESLIE D. CLARK

Architecture

Clark is one of those fellows that seem to be more in evidence around the Institute than most of the other architects. He is profs, between his social dates, and his fussin' at the Architect quite a student also, and has astonished some of our most noted Informal.

Nevertheless, Clark is one of the main-stays of the Atelier.

WM. CLARKSON, Jr.

C. E.
Born, September 3, 1888, Corsicana, Texas.
Beta Theta Pi.
Civil Society.

This southern breeze has only been with us a year. We should have met him sooner. "Have you all got your bridge drawn" is quite a variation on the usual "Say ain't you done that yet," of the Civil Drafting Room. Clarkson hadn't been to school a day last Fall, until he was toted off to a ball game, and exhibited the right good fellowship that all the civils have learned to know and appreciate. We do not know whether "Vic Cole" or Photographer Gross, started the rumor, but it is said Buck is Clarkson's only rival for the beauty prize of the Senior class.

VICTOR E. COLE

C. E.
The Digging of Caissons Automatically.
Born, January 15, 1886, Toronto, Canada.
Prepared at Hyde Park High School, 1905.
Civil Society. President of Class, '07-'08.

Victor, "Energy," Cole. Just shake hands with Vic some day and feel that energy pulse up your wrist, see it come out of his glistening eyes, and you'll know he is one to be reckoned with.

ALBERT H. CROOKER, Jr.

M. E.
Test of a Hydro-Electric Plant at Marseilles, Ill.
Born, September 27, 1887, Streator, Ill.
Prepared at R. T. Crane High School.
A. S. M. E.

Crocker is one of those mechanicals who occasionally attends business law and law of contracts, when not otherwise engaged. Streator, Illinois claims him as one of her sons aspiring to the hall of fame. We are informed that Crocker is some fusser, when not breaking records on his motor cycle.

WILLIAM JAMES DEVENEY

C. E.

Proposed Hydraulic Power Development on East Canada Creek near Ingham, Mills, N. Y.

Born, November, 26, 1888, Chicago, Ill.
Prepared at Armour Scientific Academy.
Civil Society.
Baseball Team, '07-'08-'09-'10.
Class Baseball Team, '07-'08-'09-'10.

Some people say that Bill is small, sorry we can't see it. But if you ever come down to Armour Institute during the past decade and did not see our Bill, something surely was wrong. If Bill doesn't play professional baseball, he may become mayor and chief engineer of some good Irish town like Hegewisch.

JOHN M. ECKERT

C. E.

Improvement of Road and Arch over Little Vermillion Creek, LaSalle, Ill.

Born, September 19, 1888, Chicago, Ill.
Prepared at Lake View High School.
Tau Beta Pi, Omega Lambda, Civil Society.
Royal Order of Dynamiters.
Corresponding Secretary Civil Society.
Junior Week Committee.

John graduated from Lake View High School with Robert Eliel, John Mabbs, Roy Guthier, and Peter J. Hand, without any one of them of whom A. I. T. could not exist.

ROBERT G. ELIEL

C. E.

Construction of Road Improvement to Raise Grade of H'g'way over Little Vermillion Creek, La Salle, Ill.

Born, June 21, 1889, Chicago, Ill.
Prepared at Lake View High School.
Civil Society, Royal Order of Dynamiters.
Class Baseball, '07-'08-'09. Class Basketball, '07-'08-'09. Manager, '08-'09. Tech. Basketball, '07-'08-'09-'10. Tech. Baseball, '09-'10.

Here's another Bob—men claim he is a Swede because he came from Lake View, but we don't care about that. He would be just as welcome if he were French or German, (for Bob's), well you know him just as well as we do.

TAUDY ENOCH GENTRY

M. E.

Vacuum Jacketing for Steam Cylinders.

Born, March 30, 1874, Sturgeon, Mo.
Prepared at Missouri State Normal and Armour Academy.
Tau Beta Pi.
A. S. M. E.

Now here's the real man, not only in outside aspect as you see him on the street, but also in his business and social relations with his fellows. If Taudry is right about anything, and he usually is, he will stick to his side in spite of all the powers that be. He is from Missouri and proud of it.

HERBERT S. GRENOBLE

C. E.

Efficiency Test of Marseilles Land and Water Power Co's Hydraulic Plant, Marseilles, Ill.

Born, April 12, 1886, Oxford Junction, Iowa.

Prepared at Constantine, Mich.; University of Michigan.

A. S. M. E.

Glee Club, '07-'10.

Treasurer Armour Branch A. S. M. E.

Grenoble, or better known at least among the mechanicals as "Grenny" started his study of engineering at Michigan and then for lack of work changed to Armour. He has never said in so many words that he would rather take a course where the work was an average between the two schools, but we know that at times he wished it.

ROY E. GUTHIER

C. E.

Design of a Re-enforced Concrete Arch Bridge over the Desplaines River at Schiller Park, Ill.

Born, April, 19, 1890, Chicago, Ill.

Prepared at Lake View High School, 1906.

Armour Civil Society.

Old "Guth" absolutely takes the prize for being a good scout. He is a cool minded "cuss" and generally says what he thinks. "Guth" is some student too and is always on deck when there's anything doing.

EVERETT WILLIS HOTCHKIN

F. P. E.

Alarm Valves.

Born, January 17, 1887, Blue Island, Ill.

Prepared at Austin High School.

Delta Tau Deta.

Freshman Football Team, College Football Team, '06. Class and College Track Team, '05-'07-'08-'09. Manager '08 Class Basketball, Class Basketball Team, '05-'07-'08-'09.

Hotch cast anchor off Blue Island, January 17, 1887. Though why the name of the Island wasn't changed to "Sunny Jim" Island after the event, is more than we can see. E. W. (not collars) (we get $2.00 for this ad.) went to Austin High School, but left in 1904, because it failed to have a proper equipment of fire extinguishers.

W. K. HOWENSTEIN

Architecture

Howenstein is one of those architects who creates a stir every now and then. The great centerpiece at the Cement Show, a design that was open to anyone at all, was won by Howenstein. We hope that his fame, however, will not overshadow his friends at Armour.

H. C. HAND

C. E.
Design of a Sewer System for South Range, Mich.
Born, June 3, 1887, Chicago, Ill.
Prepared at Lake View High School.
Civil Society.

Johnny claims they used to call him Hank at Lake View, where he hailed from, and insists that Rogers was first to see his resemblance to his band-master relations, but we think he has been Johnny always, it fits so well. Kloman likes to call him Peter J. in the Spring when the goats are riding the barrels in all the Rathskeller windows.

JULIUS G. HATMAN

M. E.
Bursting Strength of Wrought Iron, and Steel Pipes, and Fittings.
Born, April 28, 1889, Chicago, Ill.
Prepared at Milwaukee High School.
A. S. M. E.
Ass't Business Manager of Fulcrum, '07-'08. Ass't Business Manager of Integral, '08-'09.

Though born in "Chi," "Geo. M. Cohan" resides in the brewery city othewise known as Pabstburg Am Rhein." After finishing his courses in Milwaukee High School, and resigning the presidency of a prominent life insurance company, he entered Armour.

PROCTOR EDWIN HENWOOD

M. E.
Power Plant to furnish Light, Heat and Power.
Born, September, 13, 1875, Calumet, Mich.
Prepared at Valparaiso University.
A. S. M. E.

Now here is old "Proc" Henwood, one of the boys who has wrestled with calulus and mechanics for quite awhile and finally got a "hammerstock?" on both of them. "Shorty" is only small in statue. In everything else he is as big a man as Zybyski, or the terrible Turk.

R. J. HOFFMAN

M. E.
Effect of Varying Compression of the Efficiency of Fairbanks Morse Gas Engine.
Born, June 14, 1887, Cincinnati, Ohio.
Prepared at St. Ignatius College.
A. S. M. E.

Big Bob is another one of the boys who likes to roll up his sleeves, don overalls, and get greased up so that he takes on the appearance of some of the native residents of Armour Avenue. Hoffman will always be noted for his excellent rendition of the original parodies in the 1910 Junior Play.

WALTER G. JENS

C. E.
Proposed Water Supply System for Rushville, Ill.
Born, December 3, 1887, Rock Island, Ill.
Prepared at Rock Island High School.
Phi Kappa Sigma.
Radical X. Civil Society. Baseball Team, '07-'08-'09-'10. Captain in 1910. Class Bowling Team, '07-'08-'09-'10. Recording Secretary of Civil Society, '09-'10.

Ever since some club reporter got Jens name as Jeus in the sporting clumn, he has been Jeus to us. Old Jens just loves this big world, and likes to get his old clothes on and kill snakes, go fishing, play ball, and be the general all round good fellow that we know.

MAURICE KALLIS

E. E.
Distribution of Potential over Units of High Tension Insulators.
Born, February 4, 1887, Chicago, Ill.
Prepared at Crane Tech.
A. I. E. E.
Tech. Basketball Team, 1909. Class Basketball Team, '08-'09. Class Bowling Team, '08.

Maurice, the sport of the West Side, has honored us with his presence at the Institute for sometime, but never has he come into such prominence as since that little addition to his upper lip. Have you noticed it?

WALTER A. KELLNER

C. E.
Experimental Investigation of Stresses in Riveted Joints.
Born, July 24, 1886, Chicago, Ill.
Prepared at Armour Academy.
Civil Society. Track Team, '07-'08. Manager of Class Track Team, '08. President of Civil Society. President of Chapin Club, '09-'10. Vice-President Chapin Club, '08-'09.

When "Walt" isn't "rolling a pill" or fussing "Dutch Kloman" he is working, and he works hard.

ROY S. KLOMAN

C. E.
Sewer System for South Range, Michigan.
Born, February, 9, 1890, at Broken Bow, Neb.
Prepared at Armour Academy.
Tau Beta Pi.
Civil Society. Assistant Editor of Integral, '08-'09. Board of Director's Chapin Club. "Shirter."

Here's another Dutchman who just stands up in his seat and yells every time they play the "Wacht ein Rhein" at a band concert or down at the Hofbrau, and like most of the sons of the Fatherland, he is a hard student.

R. F. LEAVELL

M. E.
A. S. M. E.

Is Leavell talking again, or yet? It is recorded that Leavell can out walk any man in the school, and how MacEwing of last year's Integral ever beat him out as manager, has long been an unanswered question. But just the same he is a good scout, although we had a——of time getting any particulars about him for the Integral.

GEORGE DUDLEY LETTERMANN

C. E.

Proposed Hydraulic Power Development on East Canada Creek at Ingham Mills, New York.

Born, September 14, 1885, Chicago, Ill.

Prepared at South Division High School and Armour Academy.

Civil Society. Fulcrum Staff, '07-'08. Class Baseball Team, '07-'08-'09-'10.

"Goocas Darcy" is the only "Dutch Turk" at Armour. His Irish brogue is due to association with the peerless "Bill Deveney." But the two "n's" at the end of his name brand him as a friend of Wurtzburger and Kummel.

SAMUEL WALKER McCUNE

E. E.

Born, September 22, 1888, Astoria, Ill.

Prepared at Dwight High School, Dwight, Ill.

Eta Kappa Nu.

Skull and Chain. Radical X. Sphinx Assistant Business Manager, Integral, '08-'09. Sub-Marshall Junior Week. Class Social Committee, '09-'10. Freshman Smoker Committee, '09-'10. Secretary and Treasurer, Armour Branch. A. I. E. E., '09-'10.

"Sam" describes this gentleman to a "T." Some of his classmates will tell you that "Walker" also describes him when properly combined with some of his other names, but we sincerely doubt it; anyway we will have to leave it to you. He is one of these jovial likeable fellows with a good fresh story.

EUGENE D. MAC EWING

E. E.

Born, March 30, 1887, Chicago, Ill.

Prepared at Parker High School, 1906.

Sphinx. Business Manager Integral, '08-'09. Class Secretary, '08-'09. Representative Intergral Board, '09-'10.

Were you ever down-hearted and feeling blue like everything was going to smash? Well here's a fellow that's always happy. We call him "Smiley" and it fits. Jovial, good natured, but not to the extent of being easy-going, (he got the ads for last year's Integral.) You know what that means.

HERBERT WILLIAM MARTIN

Ch. E.
Manufacture of Soaps and the Recovery of Glycerine.
Born, December 1, 1886, Chicago, Ill.
Prepared at Armour Academy 1904.
Delta Tau Delta.
Chemical Society. Treasurer of Freshman Class, '08. President Sophomore Class, '08. Social Editor of the Fulcrum, '06. President Chemical Engineering Society, '09-'10. Member class Basketball Team, '06.

Martin is a hard student of serious purposes and ought to be able to make a pretty fair brand of soap, and a tolerable sort or glycerine. "Herby" is a quiet, unassuming "looking" fellow, but he will call anybody's bluff.

HARRY E. MOYSES

E. E.
Design of a Hydro-electric Plant.
Born, August 5, 1895, Chicago, Ill.
Prepared at Wendell Phillips High School, 1905.
A. I. E. E. Academy Championship Basketball Team, '08. Member Class Championship Basketball Team, '07-'08-'09. Member Championship Bowling Team, '06-'07-'08-'09.

FEDERICO J. MUNOZ

C. E.
Design of Sewer System for the City of Rushville, Ill.
Born, July 17, 1886, Catbalogan, Samar, Philippine Islands.
Colegio de San Juan de Letran, Manila, P. I.
Radical X and Civil Society.

Fritz is the only tame Filipino in captivity, not only that, but he is harmless. Chico, is one of the civils and a hydraulics as well. We can safely predict a brilliant future for the Philippines with such engineers as he is in charge of municipal affairs.

WILLIAM JOHN NEVILLE

E. E.
Various Methods of Determining the Commercial Efficiency of Direct Current Motors and Generators.
Born, February 26, 1889, Chicago, Ill.
Prepared at Armour Academy, 1906.
Tau Beta Pi, Eta Kappa Nu.
A. I. E. E.

"Sleepy" is another one of the A. S. A. boys, and while there, he was one of the best fielders on the Academy baseball team. Since joining the Tech., he has abandoned his athletics for his studies and societies (Tau Beta Pi, and Eta Kappa Nu.)

ROSWELL P. PEARCE

C. E.
Born, June 5, 1889, Chicago, Ill.
Prepared at Hyde Park High School.
Delta Tau Delta.
Radical X, Civil Society. Marshall, Junior Week. Social Editor, Fulcrum. Social Committee Radical X.

"Rosy," as he is familiarly known, is quite some fusser, and his shirt front usually glitters with some fair one's sorority pin. He first stepped into the limelight club when he elucidated on the "Recent Increase in the Red Tie Industry" at the Radic banquet.

FREDERICK M. PFAELZER

F. P. E.
Alarm Valves.
Born, February 16, 1889, Chicago, Ill.
Prepared at Armour Academy, '06.

"Fish" was a nice little fellow in knee pants when he went to A. S. A., but he certainly turned a few tricks since. He is a track team rooter of fame, accompanying last year's team to Monmouth, and not only rooted hard, but saved our team from the very jaws of the Monmouth mob.

EDWARD F. POHLMANN

Ch. E.
The Manufacture of Soaps and the Recovery of Glycerine.
Born, December 15, 1888, Chicago, Ill.
Prepared at Wendell Phillips High School, 1905.
Y. M. C. A., Chemical Engineering Society. Vice-President Y. M. C. A., '09-'10. Treasurer Chemical Society, '09-'10.

Here we have another man with two N's at the end of his name. Hence we trace his Irish ancestry. He "grad-oo-eighted" from Wendell Phillips High School and immediately was seized by the Y. M. C. A. spirit at Armour, being the Vice-President for the past year.

OLIN LEWIS RICHARDS

E. E.
Born, October 11, 1884, Milwaukee, Wis.
Prepared at Calumet High School, 1905.
Phi Delta Theta. University of Chicago.
Radical X. Sphinx. Social Committee Sophomore Class. Vice-President of Class, '07-'08. President of Class, '08-'09. Social Committee, 509-'10. Assistant Business Manager Armour Engineer, '09. Business Manager, '10. Track Team, '07-'08. Smoker Committee, '07-'08.

Not withstanding the fact that this youth was born in Milwaukee, that his friends call him "Olie," he was once one of Stagg's string of Demon Athletes.

HARRY J. ROGERS

E. E.
Born, October 30, 1883, Beloit, Wis.
Phi Kappa Sigma.
Radical X. Manager and Member of Track Team, '07-'08-'09-'10. Class Bowling Team, '06-'07-'08-'09. Social Committee, '08-'09.

Here's old "Dogde," one of the best men that ever registered at Armour. What will the track team do when he leaves us, after standing by us for four years. H. J. is a bundle of good nature and his every-ready smile is more welcome than the signs of spring.

HENRY I. ROSENTHAL

E. E.
Hydro-electric Development on Snake River at Ox Bow Bend, Idaho.
Born, July 26, 1889, Chicago, Ill.
Prepared at South Division High School, and Wendell Phillips High School.
A. I. E. E.

Rosenthal is the blushing beauty of the class. When he starts to talk he also starts to blush, and acts so bashful, but holy smokes just listen to some of his stories in the Engineerinb Club. Well it's no wonder he blushes.

E. M. RUEDE

E. E.
Distribution of Potential in Suspension Type Insulators.
Born, January 24, 1890, Abilene, Kansas.
Prepared Kansas State Agricultural College, 1909.
A. I. E. E.

This little sunflower has only been with us a short time and we have had to overlook the greatest of all his shortcomings. It is a shame to mention it, but maybe he wasn't to blame that he was born in Kansas; so be merciful and don't kick a man when he is down.

EDWARD S. SHERWIN

E. E.
Raton Mountain Electrification Project, A. T. & S. F. R. R.
Born, May 6, 1889, Chicago, Ill.
Prepared at Waukegan High School.
Eta Kappa Nu. A. I. E. E.

Sherwin is another of those good natured electricals. Just now, in cahoots with Bill Bailey, he is trying to slip one over the A. T. & S. F. R. R. Sherwin is one of those fellows commonly known among the students as a "star," and this is evidenced by the fact that he is chairman of the A. I. E. E. Unless we are greatly mistaken, Shewin will probably be president of some coast to coast electric line a few years hence.

MONROE ADNEY SMITH

C. E.

The Experimental Determination of Stresses in Long Slender Columns for Aeroplanes.

Born, February 28, 1883, Chicago, Ill.

Prepared at North Division High School, 1902.

Tau Beta Pi. Civil Society. Camera Club. Sphinx. Member Class Executive Committee, '07-'08. Class Representative to Integral, '07-'08-'09-'10. Editor-in-Chief Integral, '08-'09. Vice-President of Civil Society, '09-'10. Secretary and Treasurer, Sphinx, '09-'10. Class President, '09-'10.

Monroe Adney Smith, alias "Ma," Adenoid, "Prof," etc. To look at him does not signify much except that he is slightly bald. "Ma" by the way is "father" to the most original "Kickurpajamas Togo."

FRANK RODDIE SQUAIR

Ch. E.

The Use of Blanket in Sugar Refining.

Born, May 23, 1887, Chicago, Ill.

Prepared at Hyde Park High School.

Tau Beta Pi.

Chemical Society. Secretary, '09-'10. Y. M. C. A. President, '08.

Sort of odd, isn't, when this gentleman who seems to have come into the world with calculus at his fingers tips means to be a chemical engineer. Frank is a quiet, unassuming mortal, who is just as human and likeable as the best friend you ever had.

WALTER CHARLES THATCHER

E. E.

Comparison of the Various Methods of Determining the Commercial Efficiency of Direct Current Motors and Generators.

Born, May 2, 1887, Chicago, Ill.

Prepared at Armour Academy.

Tau Beta Pi.

A. I. E. E.

"Thatch" has always been intimately connected with Neville, and is now aiding "Sleepy" in his thesis work.

WILLIAM EDWARD THOMAS

M. E.

Born, December 31, 1887, Winona, Minn.

Prepared at East High School, Minneapolis, 1905.

Phi Delta Theta.

Skull and Chain. Radical X. Sphinx. Social Committee, '08-'09, '09-'10. Chairman, '10. Freshman Smoker Committee, '08-'09, '09-'10. Chairman, '10. Baseball Manager, '08-'09. Associate Business Manager Armour Engineer, '09-'10. Mandolin Club, '09-'10. Vice-President, '09--'10. Secretary Armour Branch of A. S. M. E. Class Executive Committee, '09-'10. Class Baseball Team, '09-'10.

"Tommy" is one of the biggest society men at Armour. He has never missed a dance or party yet, and still he is Tau Bet material. He started his college course at Chicago University, but thank goodness he came to Armour, where he immediately "made" every local society.

DUVALL WILLIAMS

C. E.
Design of a Sewer System for South Range, Michigan.
Born, February 1, 1888, Evanston, Ill.
Prepared Mercersburg Academy, 1905.
Civil Society.

"Billy," "Grayhead," "Norville," "Duvie." This gray-haired son of rest, first stepped off a Northwestern train at Evanston, in the year 1888. Bill has been prominent in numerous wrestling tournaments around the city, and we hope this "little peaches and cream kid" does as well in the future as he has in the past.

DONALD A. YOUNG

M. E.
Efficiency of Sterling Boiler with Varying Speed of Grate and Depth of Fuel with McKenzie Chain Grate.
Born, August 14, 1887, Gardener, Ill.
Prepared at Trinidad High School, Trinidad Colo.
Mechanical Society.

Young, or known by some as "Cy," comes from the Wild West; anyway, Colorado is the state in which he has managed to spend a part of his life.

ROY WHITMORE

E. E.
Comparison of the Various Methods of Determining the Commerical Efficiency of D. C. Motors and Generators.
Born, August 11, 1884, South Milwaukee, Wis.
Prepared at South Milwaukee High School and Armour Academy.
A. I. E. E.

Roy comes pretty close to staying out of the Integral altogether. He was so late with his dope sheet. But he doesn't do all things after that fashion.

LOUIS THEODORE ZEISLER

E. E.
A Study of Induction Motor Phenomena.
Born October 4, 1887, La Crosse, Wis.
Prepared at La Crosse High School and Armour Academy.
A. I. E. E.

"Zeis" is wedded to his work and doesn't get much time to mix with the bunch, but then that is one of the penalities of being married.

EUSTACE VYNNE

C. E.
Design of a Sewer System for Rushville, Ill.
Born, December 4, 1889.
Prepared at Armour Academy, 1906.
Delta Tau Delta.

Skull and Chain. Radical X. Sphinx. College Basketball Team, '08-'09-'10. Chairman Junior Social Committee. Glee Club, '07-'08-'09-'10. Business Manager Fulcrum, '09-'10. Class Basketball Team. Junior Show. Track Team, '09-'10. President Radical X. Class Basketball Team and Baseball Team, '07-'08-'09-'10. School Golf Champion.

"Our Eustace" has to his credit without a doubt, more achievements in his college career than any man at Armour, and still he manages to pull "A's" in most of his studies.

FRANK EDWARD WERNICK

M. E.
Born, October 6, 1888, Hillsboro, Wis.
Prepared at Hillsboro High School, 1906.
Tau Beta Pi. Omega Lambda.

Armour Branch of A. S. M. E., Sphinx. President Armour Branch A. S. M. E., '09-'10. Assistant Editor Integral, '08-'09. Smoker Committee, '09-'10. Class Treasurer, '09-'10.

"Frank Edward Wernick," but never put a final "e" in that last word. "Ed." doesn't like it.

History of 1910

Armour Institute, Chicago, U. S. A.
June 1, 1907.

To much revered and Hon. Father:

Dear Sir:

All this year have I much time spent in copying customs from this glorious country. When I first walked into the front door of this learning place, I kneeled down, thinking it Armour's Church, when somebody with authority of hand uplift me and say "Get in line there." I reply with much dignity, "where is line." He answered back, "It's around here somewhere, find it."

So I finally seek crowd slowly moving and I follow. After much fatigue of legs, I reach office where I inquire where I can get much engineering learning. For reply he hand me slip of yellow paper and say, "Pay in library." I again wander around to another line. When I reached the desk, the man takes my money and paper which he hands back, but not the money. I am informed to sign with the professors. This starts my course of physical study which I finished that same day after much running up and down stairs.

Soonly after this I overheard that there is a riot coming and prick up my ears informingly, but only see many deceptively looks. I require the meaning of this and am taken to a meeting where plans are made to uphold the honorable class. This make me feel much elevation of spirit, when I know I am member of the 1910 company.

When the trouble is made so, honorable members get locked in barn, but this caused such indignation feeling that Hon. Roosevelt send officers to capture the members of the company 1909, who dared to step on toes of 1910. Company of 1909, not satisfy with this, but try to pull us off the earth. But this end most poorly for 1909.

No more excitement follow, but study all day and night until the rest of the student see what hon. class it is and invited to a smoker. Here we act much like guest of honor and have jolly American time getting much smoke in eyes.

Next come what American call dance, which some grand ball. Everybody have great time and go home thinking 1910 great class.

Soon follow this the end of the year which means everybody stay up late and learn what all year work been. Then come much loafing.

Yours truly,

KICKURPAJAMAS TOGO.

P. S. Working in tea shop.

"Wise men care not for what they cannot have."

Armour Institute, Chicago,
June 3, 1908.

To Respectable Father:

This new year have I made much improvement in annexation of American Customs and styles. This country is run over with tailor companies, who make business of supplying young men with noisy clothes. I send you picture of your son. Much sickness caught from wearing pants high in ankles. At beginning of year we wipe new class 1911 up off the earth. This give us sweet revenge on innocent party. We then give smoker to freshmen and march to smokehouse with Fourth of Independence Day celebration. After dove of peaceableness settle down everybody enjoy good times. Next come great events of years who is great function of dance. Everybody borrow fancy clothes from business dress lender. This make White House dance fade. While most enjoy hard work, we make much noise at popular geisha play house. This give good history of many ideas.

Yours truly,

KICKURPAJAMAS

Armour Institute, June 14, 1909.

To Hon. Governor:

We have had one glorious time this previous year. At start of year we stand on side lines to watch other class scrap and get pinched. Then follow one smoker to poor beginners. At near end of year we give one big week of sociableness. First come assembly in honor of juniors what we are. The big head of year is play give by juniors to present history of whole year. We get our history and book called Integral who I sent to you. Then come a bigger dance which never been better and a banquet where everybody get much joyfulness of spirit. At end of year I go to what is called Auditorium to go to church, but was much late. When I see plenty of people go in, so I follow. I see fine play instead of church. Show called Follies of 1908. Now have forcefully resigned from Armour's Institute, and have lucrative position in Chop Suey Eat House.

Respectfully yours,

K. TOGO.

"Worry kills more men than work."

Hotel Orient, Chicago, April 1, 1910.

To Hon. Editor Integral Book,

Dear Sir:

I have much fond memories of Armour's Institute when there, but in previous year to this I am fire, so think no more until reception of letter from Hon. Kiley, who is editorial man, beseeching me to write of happenings in honor Senior Class this year, so I accelerated to answer.

Senior Class at Armour Institute is quickly and excessant fast. Come last September, Hon. class have much about man to man, and down with Civil which all I did is nothing but Happy New Yearly election comes off. After 3 times vote Hon. Smith he electioned to supreme office. Then come time for light fantastic tripping, as say poetry man, which take place in due course which is at Colonial Club. All borealis aurora and happy sunshine. But soon war haze gathers in Eastern skies. For time to get exquisite image likeness of high brow graduates is come. To find out all reasons for same I endeavor. So to Hon. MacEwing I say, "tell me from this for Integral Book," but Hon. he question back "I refusing answer." So I interrogation Hon. Thomas, but he is getting ads for engineer book and have infinitesimal time to talk. So he Hon. Richards I hie me. "I am getting sore now." All which leave me in dark oblivion of meaning. With deep furrow wrinkles on my forehead I quickly question Hon. Martin. "Sign here" fling Hon. he, giving fourth petition paper. But "No" say I, for I must be neutral as is France in late unpleasantness which is Japan-Russian fight. Hence, therefore, I direct my journeys to Fulcrum office for news of fight. Here is scholastic quiet and Y. W. C. A. peace. Hon. Bolte charge d' affairs telling of straight tip to realy truly story. Question back "Hon. Togo it is simplicity. Senior Class question it should get photographs by Wallinger, dozen or gross, and bring much of modest and blushing nature so they buy by gross which as MacEqen said is cheaper." But then Hon. Editor come big fight of Integral Board. Hon. Smith and Hon. Civils, he is stubborn for what he expatiate is sufficient reasons and you Hon. Editor is like also in same fix. So Hon. class say Integral Book can impossible to have pictures of beauty class of Armour Poor Man's school (150 yens—36 weeks) and you Hon. Kiley are careless what senior class do. But soon chantecler crow again and Hon. son raised on beautiful armistice morning of peace and "All's well on Potomac" as says Hon. Washington who was father of this place.

Now soon come time for Hon. engineers to take good bye paper of president of college. So can work and get marry like Buck almost do. Therefore all shale rocky feelings is go by for peace exquisitely takes place.

And Hon. Senior class is a great mentality and bigness of heart who shall go from here to all four corners of this round earth to show poor Italian and heathen Chinese how make railroads, dynamoes, steam engines, house beautifuls, etc. This I know Hon. Editorial is good for them.

Hoping you are the same

Yours truly,

KICKURPAJAMAS TOGO.

Note:—Kickurpajamas Togo expresses all due apologies to his cousin, Hashimura via, the kindness of Wallace Irwin.

"Take the world as it is, not as it ought to be."

JUNIORS
ARMOUR
JM

The Class
OF
Nineteen Hundred and Eleven
Juniors

R. ZACK H. W. JONES J. A. McCAGUE W. W. DREW

Colors: Maize and Blue

YELL

We're sure going some.
Armour Tech. Double One.

INTEGRAL BOARD

Samuel R. Todd
Walter W. Drew
Le Roy D. Kiley
Elmer L. Canman
Garry B. James
Gerry D. Pettibone
Philip F. Miller

FULCRUM REPRESENTATIVES

E. J. Schmidt

SOCIAL COMMITTEE

Charles W. Hills
Le Roy D. Kiley
R. J. Geisler

Members of the Junior Class

STUDENTS IN ELECTRICAL ENGINEERING

Anderson, L. C.
Bloomfield, J. C.
Boettcher, R. E.
Bradford, P. L.
DeTar, D.
Dobbie, E. C.
Drew, W. W.
Eichenberg, P.
Emmons, G. C.
Evans, P. W.
Fletcher, J. H.
Gault, M. E.
Goldberg, I.
Graham, F. A.
Gray, R. L.
Hall, C. D.
Hay, R.
Heitner, W.
Hills, Jr., C. W.
Hubschman, R. M.
Hutton, H. K.
Konicek, Jr. F.
Kroschner, W. F.
Langstaff, H. P.
Lohse, A. C.
McGuire, W. P.
Mabbs, J. K.
Nelson, A. W.
Newhouse, A. M.
Packer, A. H.
Paskiewiez, J. A.
Pettibone, G. D.
Rothwell, P. A.
Sackheim, S.
Schmidt, E. J.
Snow, C. A.
Tellin, W. G.
Whitaker, D. A.
Williams, L. L.
Witte, O. I.
Zimmerman, C. L.

STUDENTS IN CIVIL ENGINEERING

Binder, C. W.
Bredlau, A. E.
Bristol, G. C.
Brown, L. E.
Burke, O. S.
Butler, H. L.
Casey, M. J.
Clever, T. G.
Emmin, G. H.
Erickson, O. R.
Ferrenz, F. J.
Geisler, R. J.
Hills, G. B.
Hynes, P. R.
Jensen, R. F.
Johnson, J. B.
Jones, H. W.
Kellner, O. R.
Kurzen, M. W.
Laskey, H.
Mandler, E.
Marx, C. H.
Narozny, J. S.
Ratkowski, E. P.
Salomon, M. J.
Sandahl, C. A.
Schmidt, F.
Shafer, G. A.
Silva, C. J. da
Simons, L.
Smith, S. H.
Szeszycki, I. L.
Tobias, W. R.
Williams, D.
Zack, R.

STUDENTS IN CHEMICAL ENGINEERING

Brant, P.
Bornstein, H.
Green, G. V.
James, G. B.
Johnson, H. S.
Miller, P. F.
Pirrie, P. G.
Sieck, H. W.
Turley, E. W.

STUDENTS IN MECHANICAL ENGINEERING

Ambrose, R. B.
Beck, C. E.
Byers, A. A.
Canman, E. L.
Cummings, C. F.
Fenn, J. G.
Goldberg, D.
Griffiths, F. H.
Gugis, K.
Kiley, L. D.
Kinzel, A. J.
Llewellyn, H.
Lohse, A. W.
McCague, J. A.
Mackenzie, T. J.
Oehne, W.
Parsons, H. N.
Peck, W.
Robinson, J. A. M.
Sieck, W. Jr.
Smith, E. J.
Staufer, J.
Steward, Jr. W. H.

STUDENTS IN ARCHITECTURE

Bajari, W. R.
Beaudry, R. L.
Bentley, P.
Booth, H.
Cheney, H. L.
Dalsey, H. I.
Freidman, R. N.
Frodin, R. S.
Furst, G.
Greengard, B.
Gustavson, B.
Harris, R. C.
Hooper, W. T.
Lindsay, A.
Merriman, H.
Odgers, P. G.
Patterson, J. E.
Rowe, L. P.
Saam, C. F.
Sailor, H. G.
Schwartz, A.
Smalley, R.
Strong, S. P.
Taylor, C. A.

STUDENTS IN FIRE PROTECTION ENGINEERING

Alling, H. M.
Danields, M.
Doering, R. C.
Metz, F. W.
Moore, W. W.
Schultz, W. E.

Junior Class.

Chronicle of 1911

BACK in the year 1907, the mighty class of 'leven brought their shekels to the coffers of Armour. Individually there were types of the greenest green, collectively they formed a compact mass which cast a dark shadow of gloom o'er the worldy wise "sophs." Signs of great struggle to come between the two classes pervaded the air, and broke forth into a challenge on the part of '11, when on the first bright Monday morn of school, a huge eleven banner flaunted defiance from the gilded ball on the roof flagstaff.

Amazed and discomfited at such daring the sophs grouped themselves about the building and thought of various hare-brained schemes of capturing the flag. Finally, after three hours work, on the part of the valiant janitorial staff, the banner was torn from its fastenings and dropped to the street below. Then ensued a riotous conflict for the possession of the honored bunting in which the freshmen succeeded in capturing the shreds of the famous flag.

The gage of battle had been cast. That self-same night fully three hundred men patrolled the streets and alleys round about the college. At 2 P. M. the freshmen made an attack on the sophomores who had gone to sleep in the Y. M. C. A. house and succeeded in tying up about two-thirds of the wily bunch when, lo and behold, a mighty band of blue-coats came upon the scene. A free for all fight took place and ended in the dispersing of the respective classes to await the deciding conflict of the morrow.

Day broke on a painted, littered, and postered campus with the sophomores encamped on Ogden Field.

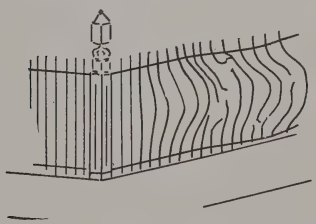
After the morning had spent itself in disquiet the two classes met on Ogden Field for a tug of war. Pulling the Sophs around proved too tame so with organization previously perfected "eleven" rushed the sophs. Round and round the field they trod bearing down their astonished foe until vanquished "ten" withdrew. The last real rush of Armour Tech. won by the class of 1911 had come to a close.

Every date, every function throughout the year registered the hosts of eleven a bunch of "we're there" men designed to change the history of the 'Tech.

"Who knows, he knows nothing, knows much."

April 24th, 1908, marked the formal advent of the 1911 class as freshmen into the social whirl of Armour. Heretofore the Armour class dances had been mere routine affairs of small attendance, but it was for "eleven" to set the pace. The largest club on the south side was hired for the occasion. Unique programs, Lawrence's orchestra, frappe, and the class numerals eight feet high blazing with colored lights, were distinquishing features, while a record breaking attendance was the crowning success.

After a summer which somewhat diminished her numbers but not her might, "eleven" registered as Sophomores. With the quick initiative born of her Freshman year, the class prepared for the annual struggle. One meeting completed all her plans while about the campus excited groups of Freshies, harrangued by some able Junior, within whom the sting of last years defeat had not yet died, sought to quell their own fears with counter moves.



But alas! the momentous Monday eve approached. The freshies met at their several meeting places, the Sophs also met and after a short struggle, succeeded in capturing about forty men. Before the clock reached twelve almost half the Freshmen class were imprisoned not in a barn—but in the hold of a ship anchored off the shore of 33rd street.

All would have been well, but some wary juniors perceiving the plight of the freshies on the morrow at the rush, with the majority of their men, the prisoners of the sophs, turned in a riot police call. Almost immediately the lake front was enclosed by a line of blue coats and four patrols backed up at the foot of 33rd street. Without a moments delay the life boat was ordered out and soon the police were swarming over the boat. The freshies were loosed and all on board hustled ashore and thence to the wagons.

All told, eighty five men were arrested and out of these five were Seniors and Juniors and sixteen were Sophs. After the usual preliminaries of trial, the Judge fined the freshmen on the grounds that if fifty of them could be held by fifteen sophs they deserved it. Once again "eleven" had made herself heard. The last class to enter into the kidnapping of the freshmen.

The time honoured Freshman Smoker was the next event that gave "eleven" a chance to show her class spirit and enterprise. One hundred and fifty men strong, each armed with a pair of brass cymbals, marched en masse to the South Side Turner Hall.

"In every pond there are fishes and some frogs."

With the clang of a thousand boiler factories; the feeble attempts of the other classes were stilled in their vain efforts to give a yell.

Having acclaimed herself champion in the affairs of the year, "eleven" once more turned her attention to social affairs. Her freshman dance had marked a new era in class dances, but the sophomore affair promised even greater things. Once more the Lakeside club was secured for the occasion, and on Friday eve, April 16, 1909, the social lights of Armour thronged to Forty Second and Grand Boulevard. Leather card case programs frappe, Lawrence's orchestra, and the electric lighted numerals greeted the guests. The surprise of the evening came however, when in the midst of the 1911 extra, a silken banner bearing the class numerals was born upwards by myriads of small balloons, while a spot light in the balcony threw its rainbow hues on the dancers below.

On September the seventh, 1909, "eleven" began her junior year with a flying start. In conjunction with the senior and sophomore classes, "eleven" was instrumental in instituting the first sane Freshman Smoker. The Freshman Handshake also registered almost the entire junior class. Once more the time drew around for the class dance, this time the junior, at the Colonial Club. Like its predecessors, it was a great success but contrary to the usual order of class dances, netted the class a neat profit.

Last but not least, the publication of The Integral, this book, through the efforts of the Integral Board, was undertaken as "eleven's" crowning achievement in her junior year. On track, diamond, and basketball floor, in class room and out, socially and politically, the class of 1911 has upheld a high standard, and the "we're there" men will still stick together long after commencement day has brought her active life at old Armour to a close.

"Never cast dirt in the fountain that has given you a refreshing drink."

A Toast

Ho, Gentlemen! Lift your glasses up,
Each gallant, each swain and lover—
A kiss to the beads that brim i—the cup—
A laugh for the foam spilt over—
For the soul is a-lilt and the heart beats high,
And care has unloosed its tether:—
"Now drink," said the sage, "for to-morrow we die,"
So let's have a toast together:—
Swing the goblet aloft: to the lips let it fall,
Then bend you the knee to address her
And drink, gentle sirs, to the queen of them all—
To the girl that's good—God bless her!

O, Youth is a madcap, and Time is a churl;
Pleasure palls and Remorse follows after;
The world hurtles on in its pitiless whirl,
With its kisses, its tears and its laughter.
But this one gentle heart in its bosom of white—
The maid with the tender eyes gleaming,
Who has all the wealth of my homage to-night
Where she lies in her innocent dreaming.
And a watch o'er her ever my spirit shall keep,
While the angels lean down to caress her,
And I'll pledge her again in her beautiful sleep—
The girl that's good—God bless her!

Ah! Bohemia's honey was sweet to the sip,
And the song and the dance were alluring
(The mischievous maid with the mutinous lip
Had a charm that was very enduring);
But out from the smoke wreaths and music and lace
Of that world of the tawdrily clever,
There floats the rare spell of the pure little face
That has chased away folly forever.
And I drain my last toast ere I go to my rest—
(O, fortunate earth to possess her!)—
To the dear tender heart in the little white breast
Of the girl that's good—God bless her!

Summer Camp

AT 10:00 P. M. last June 2nd, the hopeful bunch of future Civils left Union station, via the St. Paul to follow a beaten trail to the summer camp at Kremlin, Wisconsin. It is needless to say that there was no sleep for the majority that night as most of the men were required to quiet the fears of the freshmen on their first trip into the Northern wilds. On leaving the train at Pembine at 7 A. M., our innocent Freshmen asked a native when the train left on the Soo Line and he replied: "Wall, sometimes it leaves at 11 o'clock and sometimes not until 3. With this heartening information, the bunch filed into the "town hotel" for breakfast to which all did ample justice. Arriving at the camp, everybody picked out their tents and bed—fellows for the following six weeks.

The camp was located on a bluff opposite "No Speak" Point, the bluff falling off sharply about thirty feet from the tents and ending in the Menominee River. Early morning plunges and a water carnival at 5 P. M. were always in order. The tents were

"The increase of knowledge increases the need of it."

all labelled as usual, the first being the "Pest House" and was occupied by Solomon and Narozny. With ample space between, the next tent contained the "Candy Kids," Dierking Collins and Overstreet. Next came the Engineering Headquarters with Prof. Wells presiding over the business end and Mrs. Wells and Mrs. Phillips upholding the social duties. The instrument tent was placed next in order as a slight barrier between the incorrigibles on the other side and the comparatively quiet bunch just mentioned. The "Hooligan Family of Freshmen" came next, consisting of Neufeld, Peiser, Farelly and Hess who were chiefly noted for their tendency to give vocal concerts at unseemly times

of the night. Adjoining was the greatest aggregation ever collected under one tent with Deveney leading as the midget whirlwind, conquerer of the Nathan nine and general society leader. He was followed by Casey, the boy sprinter who defeated the much touted lumber jack "phenom" in a 100 yard dash, Slow foot Oehne. "Bubbles Hills" and Anderson, the Terrible Swede, comprised the rest of the aggregation.

Seldom Inn was the name of the next summer home which housed the mighty seniors who promoted the Blum—Kremlin Beer line. Stevens, (who occupied half the tent) Buck, Smith and Johnny Hand were the inmates. This tent was usually peacably inclined except when Buck saw things during the night and raised a row that could be heard at the Boom Company's Cabin half a mile away. Besides them and flanked on the other side by Jack Chandler's tepee were the "Sons of Rest." Here at any time the inmates could be found, engaged in arguing on any thing from astronomy to the question of whose turn is was to go for water. "Sophie" Bredlau, "Pickles" Haynes, "Mutt" Johnson, and "Bart" Zack, supplied the necessary noise in this minature pandemonium.

"Advance in learning as you advance in life."

Faithorn came to life to such an extent that it gave two dances during the six weeks stay, and Nathan, did the same. On July 3rd, the camp baseball team defeated Nathan, but on the following day lost to Pembine. Fourth of July night was "ladies' night," when everyone from far and near came to watch the fire-works.

For further information ask Zack, he's wise.

High winds caused much trouble, blowing Solomon's tent down on top of him, and escorting Chandlers tepee to an adjoining hill. One hot and sleepless night we were enlivened by a serenade from "Bubbles" and Zack, together with their friends from the Boom log cabin. This was followed by a raid on the cooks tent after which all returned to fully satisfied. The log drive, as usual, was a feature of the six weeks stay. Two freshmen, unable to endure the rigors and hardships of the camp returned home after two days. When the last of duties were done, all, tanned and hardened by their experience, boarded the train for home and school.

"The really great never cease growing till they cease living."

SOPHOMORES
·JM·

The Class
OF
Nineteen Hundred and Twelve
Sophomores

L. H. ROLLER | R. S. DREW | E. L. FARRELLY | G. A. ANDERSON

Colors: Purple and White

YELL

Hullabaloo—Hullabaloo—1-9-1-2
Hullabaloo—Hullabaloo—1-9-1-2
Hullabaloo—Hullabaloo—1-9-1-2
—TWELVE—

INTEGRAL REPRESENTATIVES

R. Neufeldt E. W. King

FULCRUM REPRESENTATIVES

F. C. Dierking W. T. Bell

SOCIAL COMMITTEE

C. W. Garrison R. W. Spindler George Anderson

Members of the Sophomore Class

STUDENTS IN ELECTRICAL ENGINEERING

Abrahamson, A. F.
Andrew, A. A.
Armstrong, G.
Armstrong, R. C.
Barlow, S.
Bjorge, T.
Drew, H. A.
Enoshita, T.
Erickson, G. C.
Gabler, M.
Gallagher, V. L.
Harlow, S. K.
Hazen, F. G.
Krause, A. A.
Lambright, G. E.
Lawson, H. O.
Liebrandt, C.
Lindberg, W. A.
Martin, W. G.
Meade, G. R.
Michael, J.
Narkinsky, C. S.
Noren, H. E.
Pagliarulo, V.
Pasimansky, M. E.
Peiser, M.
Pond, T. S.
Renaud, E.
Roller, L. H.
Ross, R. R.
Schilling, C. A.
Schuler, C.
Strong, P. A.
Sturtz, H. K.
White, L. R.
Williams, G. E.

STUDENTS IN CIVIL ENGINEERING

Anderson, G.
Anderson, S.
Beach, W. E.
Bell, W. T.
Chandler, J. C. J.
Claar, R. J.
Clark, R. B.
Collins, C. W.
Curren, E. F.
Dierking, F. C.
Farrely, L.
Fjeldseth, J. T.
Galbraith, J. D.
Garrison, C. W.
Hess, A.
Holden, E. C.
Holtman, D.
Kornfield, L.
Leichenks, P. W.
Lewerenz, M. C.
Lewis, Jr. G. D.
Lowenberg, M.
Lotz, H. F.
Lutze, R. L.
Mack, F. J.
Malzen, M.
Mesny, R.
Neufeldt, R.
Niemz, A. M.
Radzin, C. L.
Rundle, T. F.
Schmidt, J. O.
Spindler, R. W.
Swanson, W. R.
Todtman, H. G.
Voight, A. N.
Walmsley, G. R.
Wolfe, A. M.
Wolfe, T. E.

STUDENTS IN CHEMICAL ENGINEERING

Beck, H. T.
Dormitzer, H. C.
Goldstein, J.
Gundaker, G. E.
Hoehn, J. C.
Kahn, S.
McGinnis, R. C.
Malekow, P.
Beifeld, H. A.
Ness, C.
Newman, J. J.

STUDENTS IN MECHANICAL ENGINEERING

Ashby, H. H.
Babcock, H. A.
Beerbaum, A. J.
Rohlander, H. A.
Chesttnut, R. C.
Coates, J. G.
Drew, R. S.
Dunn, W. C.
Fors, A. F.
Ruef, J. E.
Rynders, G. W.
Strale, N. W.
Gilbert, E. B.
Grassely, W. J.
Irving, G. F.
Keachie, P. L.
Larson, H.
Lawrence, M. F.
Ligare, G.
Moore, M.
Porter, J. C.
Redlich, R.
Strawbridge, R.
Wong, Yuk
Wyman, R. W.

STUDENTS IN ARCHITECTURE

Anis, A.
Braun, W. T.
Converse, L.
DeWalt, E. W.
Dyer, S. C.
Gatling, J. L.
Gilbert, L. M.
Gilbert, H. W.
Hamilton, D.
Hayes, E. B.
Keuser, M.
Kincade, L.
King, E. C.
Legel, J. G.
Leviton, M. I.
McAvoy, W.
Machacek, J.
Pinotek, C. L.
Powers, E. R.
Schneider, C. P.
Scoville, R. C.
Sincere, E. M.
Smith, J. H.
Thomas, T. L.
Waldron, H. R.
Worster, H. M.
Wustenfeld, R. W.

STUDENTS IN FIRE PROTECTION ENGINEERING

Ahern, A. A.

Sophomore Class.

Sophomore Class History

TO the class of 1912 belongs the honor of making a name for itself without the aid of red paint or another free ride in the precincts special omnibus, guarded by some of Chicago's finest blue coats. This year Doctor Gunsaulus set his foot so firmly upon the class rush, that the sophomore class, the so called "class of criminal reputation" due to the record of last year who, when, they were vanquished by the haughty class of 1911, but were unable to do the same to the police and Judge Girten, decided that it would be beneficial both for the welfare of the school and the class and of course to the incoming freshmen, to drop the annual carousal and turn their attention to other things.

To show however that there was no ill-feeling towards the freshmen class, the sophomores were among the first in welcoming the class of 1913 to Armour, by giving the Freshman Handshake and Smoker their undivided support, thereby making these events about the best that Armour has ever held.

Due no doubt to the splendid showing of the class in all branches of athletics while still in its freshman year, when not only were individual members of the class represented on all of the teams, but the class as a whole sprang into athletic prominence by almost beating the Seniors out of first place in the track meet, we decided to make this one of the banner seasons for the class of 1912. The first thing that the class turned their attention to was the class basketball and baseball games; and upon examining the records it will be found that the sophomores beat every basketball team in the college, and through misfortune lost in championship to the sub-freshman team, the only game which we lost. In baseball the class was not so successful, due no doubt to the fact that the year previous we had no representatives in the field and consequently lacked good team work, which is an essential to a winning team. In the bowling tournament we were extremely unfortunate to draw the cellar position for team honors, partially because of lack of time for preparation and practice and partly due to the excellent work of the seniors, four times winners of the tournament. This year, however, we hope that it will be a different tale since more men have turned out and better scores have been made by all of the condidates.

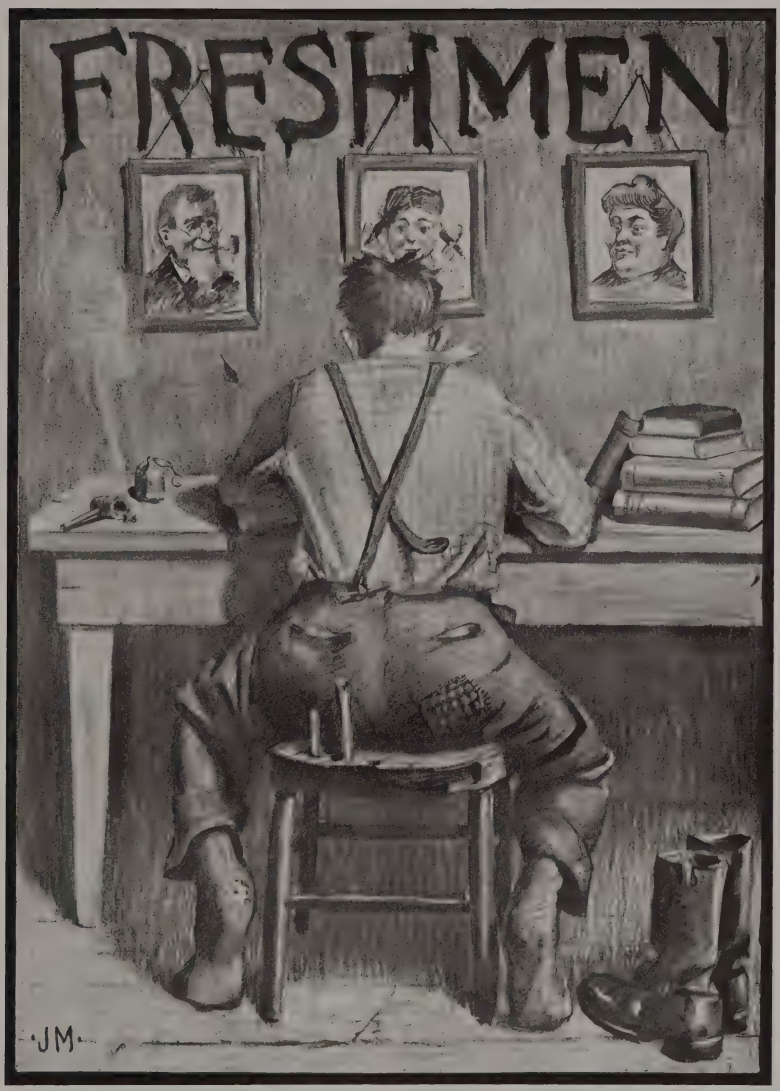
"There is no royal road to learning."

Next comes a brief review of what the class has done in a social way for the betterment of Armour life. Beginning as freshmen, we not only held one of the most successful dances that Armour Institute has ever witnessed for many years, but also gave the other classes financial aid by attending their dances in large numbers. The 1912 freshman dance was not only original, but was also exceptionally well handled, surpassing the fondest hopes of all those that attended. This year we not only expect to equal it, but to surpass it, making it the best dance ever held in the annals of Armour History.

Not only did the class of 1912 confine its social ambitions to class dances, but it also branched out into the Glee and Mandolin Club, an organization which has more Sophomores on its list than any other class. Another club which the class took up with much enthusism both as freshmen and sophomores, was the club originated by Simeon B. Chapin, after whom it is named. Through the aid tendered by the sophomore class, the upper classmen with the assistance of the faculty, have been enabled to make a success of this club, thereby affording the Armour students a gathering place, where goodfelllowship always predominates.

For business ability and school interest, the class of 1912 has proven itself of sterling quality. As yet it is still in its youth, but by next year it will be out in full force, and show its ability during Junior week and also as Publishers of the Integral. If any student has a doubt, when anything of importance turns up, investigate and you are bound to find the class of 1912 behind the event pushing for all it is worth.

"He is foolish to blame the sea, who is ship-wrecked twice."


FRESHMEN
JM

The Class
OF
Nineteen Hundred and Thirteen
Freshmen

G. ADAMS | D. SIMPSON | D. L. WEART | F. L. MOORE

Colors: Maroon and Gray

YELL

A. I. T. A. I. T.
1913
A. I. T. A. I. T.
1913
A. I. T. A. I. T.
1913
RAH

INTEGRAL REPRESENTATIVE

R. E. Agee

SOCIAL COMMITTEE

R. E. Agee
G. Adams
P. K. Brown
R. Kirkham
F. Moore

Members of the Freshman Class

STUDENTS IN ELECTRICAL ENGINEERING

Adams, G. H.
Allen, M. P.
Appel, R. B.
Arenberg, A. L.
Arnold, C.H.
Arp, W. B.
Buntenl, J. C.
Catelani, G.
Certia, C.
Cooper, H.
Copenhaver, P.
Crowell, Jr. C. H.
Curtis, M.
Dailey, T. B.
Doege, H. L.
Donaldson, R. C.
Ehrman, J.
Fischel, R. E.
Fisk, E. M.
Fryburg, W. F.
Hartenbower, M.
Harder, M.
Hetzler, J. R.
Hoffman, E. L.
Hollowed, J.
Ingram, H. D. G.
Lill, A. C.
Livings, F. T.
McDonald, J. E.
Mann, W. C.
Meyer, P.
Miller, J.
Mooney, G. F.
Moore, F.
Perry, L. J.
Richards, A. L.
Rietz, E. W.
Robbins, C. E.
Rosenberg, J.
Sawyer, M. R.
Simpson, D. E.
Stansel, W. G.
Swanson, F. A.
Tiltz, B. E.
Wallace, H.
Walsh, R. L.
Wilsey, I. H.

STUDENTS IN CIVIL ENGINEERING

Agee, R. E.
Ahlvin, N. V.
Badger, O. C.
Cooper, W.
C. Haund, W. H.
Cramer, A.
Culp, C. B.
Dixon, H. L.
Fallon, E. J.
Flemming, M.
Ford, G. F.
Furey, J. J.
Goodnow, D. H.
Hene, B. B.
Hopkins, W. T.
Israel, H. F.
Koch, R. J.
Langill, E. O.
Larson, G. M.
Lucas, J. F.
Lundberg, J.
McElligott, W. P.
McEvoy, P.
Moore, Thos.
Opper, G. L.
Phillips, B.
Pitts, G. C.
Robinson, P. C.
Rothwell, R. F.
Sabin, M. R.
Steindler, J.
Stewart, J. L.
Swatek, R. A.
Toenges, L.
Trugillo, F. A.
Valentine, H. W.
Verhoeff, J. R.
Wald, M. D.
Walin, H. S.
Weart, D. L.
Webster, A. K.
Williams, F. H.
Williams, C. E.
Wood, J.
Westluna, E. G.

"In life as in wine, drink not to the dregs."

STUDENTS IN MECHANICAL ENGINEERING

Allen, T.
Anschicks, C. E.
Bradford, J. D.
Brown, P. K.
Burley, E. R.
Curtis, C. E.
Drew, H. S.
Deozeski, D.
Gallo. E. E.
Harvey, T.
Hayes, Jr. J.
Hullquist, Elmer
Jarvis, B. H.
Johnson, P. O. E.
Kehr, C. F.
Kirkham, R. F.
Kuehn, H. R.
La Rue, M.
Money, C.
Nisley, R.
Newman, I.
Oye, G.
Philleo, L. M.
Robertson, R.
Scheiman, O.
Schrubber, J. A.
Smith, P. O.
Spencer, Jr. C. A.
Stump, D. M.
Tay, C. D.
Tomlinson, H. E.
Wares, J. C.
Willson, H. E.
Wilson, J.
Wintercorn, Jr., J.
Yorke, W. H.
Young, B.

STUDENTS IN CHEMICAL ENGINEERING

Buttner, W. C.
Cole, R. M.
Goldberg, J. A.
Hahn, G. A.
Haynes, W. E.
Hoven, R.
Hubbell, R. C.
Jones, A. E.
Knaus, P. J.
Marx, W. J.
Miller, F. B.
Platofsky, E. C.
Reed, J.
Sachtelben, C. G.
Schuette, A. J.
Wilson, L. T.
Zeihn, R. S.

"He shall be kept busy, who studies to please fools."

STUDENTS IN ARCHITECTURE

Allen, C. J.
Bischof, J. H.
Bossman, W. F.
Brown, C. M.
Crow, R. M.
Davis, J. R.
Ermelling, R. W.
Faulkner, C. D.
Forbes, H. P.
Fox, G.
Furay, C. J.
Gibbs, A. D.
Hallin, E. L.
Hamilton, D.
Hayes, C. W.
Henningson, H.
Teal, W. W.
Waterman, G. C.
Hodgkinson, G. D.
Herman, R. J.
Larson, G. B.
Lautz, Jr., W. H.
Livingston, H. H.
Lowenthal, D.
Martin, D.
Martin, E. D.
Murphy, F. T.
Peters, H. C.
Peters, R. H.
Prescott, Jr., P. B.
Reeves, A. C.
Salzman, A. L.
Sheddon, J. B.
Woolridge, R.
Zillmer, E. G.

STUDENTS IN FIRE PROTECTION ENGINEERING

Graff, W. W.
Hansen, J. H.
Holden, Jr., A. F.
Sowards, H.

"The only way to have a friend is to be one."

History of the Class of 1913

ALTHOUGH the class is under the old superstitution that the number '13 is an unlucky one, nevertheless there is not a man in the class who would be willing to change places with a man in another class, on account of superstitution. Every Freshman can already see that their class is THE CLASS of the school, not only in athletics but in society. The college teams in nearly all branches of athletics would be greatly handicapped if it were not for the freshmen who have come forward and made the teams what they have been. In society, it can be proved that as many freshmen have attended each social function, as all the other classes combined.

At the opening of school, September 7, the freshmen class which reported for registration, had a greater number than any other previous class in the school's history. And it will be hard for any succeeding classes to equal the class of '13 in quality and quantity.

At the first meeting of the year, class officers were elected and we are proud to announce them as the following: President, Dudley Simpson; Vice-President, Donald Weart; Secretary, George Adams; Treasurer, Font Moore. The social committee and colors were voted on at the next meeting and after various combinations of colors were taken into consideration, Maroon and Pearl Gray, were finally adopted as the colors of '13. The social committee which was elected by the class consisted of G. Adams, P. K. Brown, R. Kirkham, R. E. Agee, and F. Moore.

The class was entertained and enjoyed a very pleasant evening, September 18, when the Y. W. C. A. held the Freshmen Handshake and the program for the evening, followed by refreshments, gave everybody present a kind feeling toward the Y. M. C. A. and a loyal feeling towards the institution.

Again, the evening of November 19, the freshmen were guests of the upper classmen, at the most successful Smoker ever held and the entertainment during the evening and the way the class was treated by the upper classmen, will always be remembered.

After watching the good points which were brought out by the upper classmen's dances, the freshmen came along and gave a dance which out-classed all preceeding dances, not only in attendance, but in the quality of programs and music.

It is the sincere hope of all, that as many members of the freshmen class will return next year to help support the class of maroon and gray, which has passed such a remarkably successful year.

"All asses do not go on four feet."

Freshman Class.

ARCHITECTVRAL
DEPARTMENT

THE ATELIER

OFFICERS AND REPRESENTATIVES

MASSIER - D.W. BOWMAN
SECRETARY G.F. FURST
TREASURER H.G. SAILOR
SERGEANT D.O. MARTIN
INTEGRAL { H.L. CHENEY / H.A. MERRIMAN
FULCRUM { E.D. PASHLEY / H.A. MERRIMAN

THE ART INSTITUTE OF CHICAGO

THE ARMOUR INSTITUTE OF TECHNOLOGY

SENIORS

MASSIER D.W. BOWMAN
SOC. REP. J.D. LIVERMORE

W.R. BAIARI	E.D. PASHLEY
D.W. BOWMAN	J.E. PATERSON
L.D. CLARK	L.P. ROWE
W.K. HOWENSTEIN	R.H. SALISBURY
J.D. LIVERMORE	A.C. STEIGELY
	T.G. VON GUNTEN

JUNIORS

MASSIER R.N. FRIEDMAN SOC. REP. R.S. RODIN

R.L. BEAUDRY	G.F. FURST	P.G. ODGERS
R.D. BENTLEY	B. GREENGARD	H.G. SAILOR
H. BOOTH	H. GUSTAFSON	A. SCHWARTZ
H.L. CHENEY	R.C. HARRIS	K.M. SAAM
H.I. DALSEY	W.T.F. HOOPER	R.E. SMALLEY
R.N. FRIEDMAN	A.F. LINDSAY	B.P. STRONG
R.S. RODIN	H.A. MERRIMAN	C.A. TAYLOR

SOPHOMORES

MASSIER - T.L. THOMAS SOC. REP. E.M. SINCERE

A. ANNIS	H.M. GILBERT	G.B. LARSON	E.M. SINCERE
W.T. BRAUN	E.B. MAYS	J. MACHACEK	J.H. SMITH
P. CONNELL	M. KEUSER	W. McAVOY	J.F. SURMAN JR.
L. CONVERSE	E.C. KING	C.L. PIONTEK	T.L. THOMAS
E.V. DEWALT	L. KINCAID	E.R. POWERS	H.M. WORSTER
O.C. DYER	J.G. LEGEL	C. SCHNEIDER	A.R. WALDRON
J.L. GATLING	M.I. LEVITON	R.C. SCOVILLE	R.W. WIJSTENFELD

MISS LAURA GILBERT

FRESHMEN

MASSIER C.W. TEAL SOC. REP. H.C. PETERS

C.J. ALLEN	H.P. FORBES	D.J. HERMAN	F. MURPHY	F.E. TOMLINSON
J. BLOCHOF	G.J. FURAY	H. JENNINGS	J.S. NADEL	G.C. WATERMAN
W.L. BOSSMAN	A.J. JIBBS	W. LOVTZ	L.C. PETERS	G.R. WOOLBRIDGE
C.M. BROWN	N.G. GREER	J.B. LINQUIST	R.H. PETERS	A. HUMMELBLAU
R.M. CROW	E.L. HALLIN	D.M. STEBBINS	P.B. PRESCOTT	H.W. TRIBILCOCK
L.E. DAVIS	D.W. HAMILTON	H.H. LIVINGSTON	A.L. SALTZMAN	J.G. FRASER
R.W. EBMERLING	D. HAMILTON	C.D. LUNDBLOD	J. STEINLER	A. WOERNER
C.D. FAULKNER	C.A. HAVILAND	E.D. MARTIN	G.F. SWEENEY	
G. FOX	C.W. HAYES	D.O. MARTIN	C.W. TEAL	

DOPE SHEET

THE Chicago School of Architecture was larger this year than ever, as a large number of last year's students returned and the new Freshman class numbers about thirty-five. This is remarkably large for a Freshman class preparing to take a four year course. The two year course has been discontinued.

In the north room of the Art Institute a new room has been completed for the use of the Freshmen class.

Mr. Robert Ostegren, an Armour, '08, is the assistant in Architecture.

Mr. George Awsumb, of the Chicago Architectural Club, is also an assistant instructor.

Prof. Tallmadge has resigned his position as Professor of Architectural Design and Mr. Chas. H. Hammond has taken his place. Prof. Tallmadge is giving lecture courses in Architectural History.

The Junior and Sophomore Ateliers have had elections of officers and the following men were chosen:

Junior Massier	Ralph Friedman
Social Representative	Rube Frodin

INTEGRAL REPRESENTATIVES

Harold Merriman Howard L. Cheney

Sophomore Massier	T. L. Thomas
Social Representative	Edwin Sincere

Miss Laura Gilbert has the honor of being the only lady in the Architectural Department.

The regular meeting of the Atelier for the election of officers was held in the class room at the Art Institute. The elections were close and exciting. The result of the election:

Secretary	George Furst
Treasurer	Homer G. Sailer
Sergeant-at-arms	D. O. Martin
Fulcrum Representative	E. S. Pashley

The Freshman class elected the following officers;

Massier	W. W. Teal
Assistant Treasurer	H. P. Forbes
Social Representative	R. H. Peters

"Looking a difficulty square in the face will often kill it."

Scandal: Three Junior Architects were seen studying the architecture of stage entrances by gas light.

It is keeping "Rube" the Swede busy getting mentions and training his pompadour so he can fuss with the girls.

"Howling" Hooper, "our" Architect, should apply for a wife at the matrimonial agency which is conducted by Frodin, Harris, Merriman and Company.

Gus, the "Big Swede," is gaining steadily in weight—and maybe in knowledge.

"Irish" Friedman is holding down his second term as Massier. Will he be like Roosevelt and refuse the "third term?"

"Noisie" Frust is still rough-housing in the drafting room. He'd be a nice little boy if he'd only quit chewing.

"Our" Karl is such a perfect lady that we hate to say any thing about him.

Has anybody seen "Doc" Beaudry's fur?

"Darwin" Jack Taylor can't find any thing else to copy in Architecture so he has about decided to pitch for Frances' Hegewisch team.

"Childe Harold" is the senior member and founder of the "Original" Art Institute Matrimonial bureau.

"Oblivious" Greengard, the original kid, is still designing ornament for the use of the students of the Beaux Arts school in Paris.

"Mult" Harris is a mormon; you will find his wives from coast to coast. If you need a wife apply for one of his.

"Get-the-gloves" Sailor is still getting in his two cents worth.

"Esma" Smalley thinks he has slipped one over on the Ancient Greek Architects. He has invented four new mouldings which are as old as the hills.

"Innocent Ike" Cheney with his baby blush should also apply to the matrimonial bureau.

"Zbyscki" Strong is still trying to bunco the bunch.

Little "Jeff" Dalsey has certainly an eye for beauty and for a confirmation of this you ought to see the "dolls" he met in Blackstone Hall.

Note:

Through an oversight, the name on the Frontispiece of the Architectural Department in last year's Integral was omitted. We are very sorry for the oversight and take this opportunity to give Mr. Ruben Frodin credit for his clever drawing.

ATELIER SMOKERS

The last Architectural Smoker of the school year 1908-1909, was held in the Art Institute lunch room, Thursday evening, May 13th, 1909. A good program and an excellent buffet lunch made the evening pass quickly. The boys left the Institute singing "Auld Lang Syne."

The three upper classes of the Architectural Department gave an informal handshake and smoker to the Freshman class Thursday night, September 28th, in the Art Institute lunch room. George Herlin, the winner of the traveling scholarship of 1909, gave a very interesting little talk on his trip to Europe last summer. "Pa" Shattuck gave an interesting talk and Mr. Hammond gave a few words of welcome. T. L.

"Cussing the weather is mighty poor farming."

Thomas sang several songs, Gibbs played the piano. After the program a good substantial lunch was served; then everybody joined in the rough house games that followed.

The second Atelier smoker this year was a great success. The event took place in the Art Institute lunch room and after a good program did full justice to one of "Nellie's" buffet lunches. After the supper the boys played "leap frog," "drop the handkerchief" and other childish games and then—went home.

INFORMALS AND DANCES

On December 11, 1909, Messrs. Merriman and Frodin gave the Juniors a rousing good time at the dance which they engineered at the Art Institute lunch room. The dances, instead of being numbered, were lettered, spelling Junior Architects. After the first six dances had been run off, a supper was served at side tables. The evening was greatly enjoyed by the Architects and their friends.

The Architects gave the first of a series of Matinee Informals, Thursday afternoon, January 27th, 1910, in room 86 at the Art Institue. Everybody had a good time and enjoyed the freedom of an afternoon affair.

On Thursday afternoon, February 17th, the Architects gave another matinee informal in room 86 at the Art Institute. This was better attended than the rest and some of our Armour friends came down to help us enjoy the "circle two-step" and good music of Mr. Baxter.

The fourth annual dance of the Atelier was held Friday night, February 18th, in the Warwick Hall. The choice of the hall for this event was a wise one as the hall is one of the prettiest on the South Side and is just large enough for our jolly bunch. The formality of an affair like this was laid aside with the introduction of the "circle two-step" in the first dance. In this way everybody became acquainted. The idea for programs was new and very clever. The floor could not be beat for slipperness and to prove this ask those who came in contact with it. Lawrence played his excellent music. The success of the affair was due to the good work of the committee, Livermore, Frodin, Sincere, and Peters. "Pa" and Mrs. Shattuck chaperoned the dance.

On Saturday night, March 5th, the Junior Architects under the management of Frodin and Merriman, gave a jolly dancing party in the Art Institute lunch room. The novelties of the evening were many. The programs were pen and ink sketches and the dances were lettered, spelling Junior Architects. A buffet lunch was served at a long table after the first six dances had been run off. Those who didn't care to dance found card tables in the club room, and settees placed in out of the way places along the corridor. The Architects and their friends enjoyed the evening immensely.

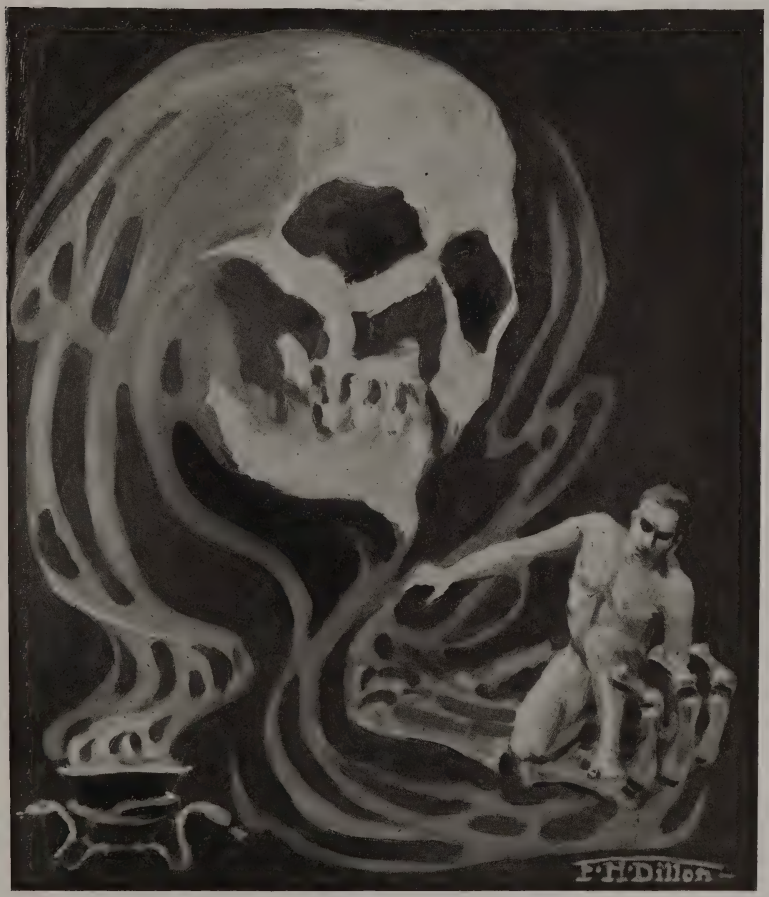
Thursday afternoon, March 10th, the Architects gave a matinee informal in room 86, at the Art Institute. Everybody there enjoyed the good music and general rough house.

During Lent there was very little doing at the Art Institute. On Friday afternoon, April 1st, the Architects gave an informal in room 86, of the Art Institute. Several new stunts were introduced to celebrate "All Fool's Day." Baxter played his good music as usual.

Quite a number of the Architects drew bids to the Normal Student's dance, Saturday night, April 9th. Supper was served afterwards in the Lunch Room.

"Be thankful for many things you didn't get."

FRATERNITIES



The Fraternities

in order of their establishment

Phi Kappa Sigma

Delta Tau Delta

Tau Beta Pi

Eta Kappa Nu

Omega Lambda

Dreka, Phila.
Design Patent applied for

Phi Kappa Sigma

CHAPTER ROLL

Alpha—1850	University of Pennsylvania.
Delta—1854	Washington and Jefferson College.
Epsilon—1854	Dickerson College.
Zeta—1854	Franklin and Marshall College.
Eta—1854	University of Virginia.
Iota—1855	Columbia University.
Mu—1858	Tulane University.
Rho—1892	University of Illinois.
Tau—1872	Randolph—Macon College.
Upsilon—1872	Northwestern University.
Phi—1873	Richmond College.
Psi—1891	Pennsylvania State College.
Alpha Alpha—1894	Washington and Lee University.
Alpha Gamma—1896	University of West Virginia.
Alpha Delta—1898	University of Maine.
Alpha Epsilon—1898	Armour Institute of Technology.
Alpha Theta—1901	University of Maryland.
Alpha Theta—1901	University of Wisconsin.
Alpha Iota—1902	Vanderbilt University.
Alpha Kappa—1903	University of Alabama.
Alpha Lambda—1903	University of California.
Alpha Mu—1903	Massachusetts Institute of Technology.
Alpha Nu—1904	Georgia School of Technology.
Alpha Xi—1905	Purdue University.
Alpha Omicron—1905	University of Michigan.
Alpha Pi—1906	University of Chicago.

Phi Kappa Sigma

Alpha Epsilon Chapter

Chartered 1898

SENIORS

Walter Galt Jens
Harry J. Rogers
Glenn Warner Buck
Edward Endicott Bolte

JUNIORS

Harold Samuel Johnson

SOPHOMORES

Walter Thomas Bell
Rufus Samuel Claar
Ronald B. Clark
Thomas Fred Rundle
William Carleton Dunn
Meredith Fay Lawrence
Arthur Miller Niemz

FRESHMEN

George Mather Adams
Robert Franklin Kirkham
James Henry Hansen
Paul Kadel Brown
Carl William Buttner
J. Harry Arnold

HANSEN BUCK STEBBINS NIEMZ BROWN BOLTE
BELL JENS CLARK CLAAR ADAMS JOHNSON
DUNN RUNLDE ROGERS KIRKHAM BUTTNER

Dreka. Phila.

Delta Tau Delta

CHAPTER ROLL

SOUTHERN DIVISION

Lambda—1881	Vauderbilt University.
Pi—1878	University of Mississippi.
Phi—1898	Washington and Lee University.
Beta Epsilon—1882	Emory College.
Beta Theta—1883	University of the South.
Beta Iota—1889	University of Virginia.
Beta Xi—1889	Tulane University.
Gamma Eta—1903	George Washington University.
Gamma Iota—1903	University of Texas.

WESTERN DIVISION

Omicron—1880	University of Iowa.
Beta Gamma—1888	University of Wisconsin.
Beta Eta—1883	University of Minnesota.
Beta Kappa—1883	University of Colorado.
Beta Pi—1893	Northwestern University.
Beta Rho—1893	Leland Stanford, Jr., University.
Beta Tau—1894	University of Nebraska.
Beta Upsilon—1874	University of Illinois.
Beta Omega—1898	University of California.
Gamma Alpha—1900	University of Chicago.
Gamma Beta—1901	Armour Institute of Technology.
Gamma Theta—1902	Baker University.
Gamma Kappa—1905	University of Missouri.
Gamma Mu—1908	University of Washington.

NORTHERN DIVISION

Beta—1862	Ohio University.
Delta—1874	University of Michigan.
Epsilon—1876	Albion College.
Zeta—1882	Western Reserve University.
Kappa—1867	Hillside College.
Mu—1866	Ohio Wesleyan University.
Chi—1881	Kenyon College.
Beta Alpha—1887	Indiana University.
Btea Zeta—1871	Indianapolis University.
Beta Delta—1875	De Pauw University.
Beta Phi—1894	Ohio State University.
Beta Psi—1894	Wabash College.
Gamma Delta—1902	University of West Virginia.
Gamma Lambda—1907	Purdue University.

EASTERN DIVISION

Delta—1863	Allegheny College.
Gamma—1861	Washington and Jefferson College.
Nu—1906	Lafayette College.
Rho—1874	Stevens Institute of Technology.
Upsilon—1879	Renssellaer Polytechnic Institute.
Omega—1897	University of Pennsylvania.
Beta Lambda—1889	Lehigh University.
Beta Mu—1889	Tufts College.
Beta Nu—1889	Massachusetts Institute of Technology.
Beta Omicron—1890	Cornell University.
Beta Chi—1896	Brown University.
Gamma Gamma—1902	Dartmouth College.
Gamma Epsilon—1902	Columbia University.
Gamma Zeta—1904	Wesleyan University.
Gamma Nu—1908	University of Maine.

Delta Tau Delta

Chartered 1901

SENIORS

Herbert William Martin
Everett Willis Hotchkin
Eustace Vynne
Roswell Phelps Pearce
Clarence Claude Bailey
Joseph Carl Reynolds

JUNIORS

Samuel Robert Todd
Raymond Murray Corning
Charles Wilford Hills, Jr.
Thane Griffith Cleaver
Philip Francis Miller
George Clyde Bristol
Leroy David Kiley
Wilfred Ray Tobias
Percy Wilson Evans

SOPHOMORES

Harry Oliver Lawson
Milburn Moore
John Drummond Galbraith
Reginald Barbinson Mesny
Walter McAvoy
Vincent Leo Gallagher
George Draper Lewis
Edwin Clifton King

FRESHMEN

Robert Edwin Agee
Hugh Lester Sowards
William Edwards Haines
Bruce Anderson Young
John Albert Schreiber
Philip Aubrey Copenhaver

KING COPENHAVER LEWIS TODD MILLER
MOORE GALLAGHER AGEE CLEAVER CORNING GALBRAITH EVANS
BAILEY PEARCE MARTIN VYNNE HOTCHKIN TOBIAS
BRISTOL KILEY HILLS YOUNG TELLIN

DELTA TAU DELTA HOUSE

FOUNDED BY LEHIGH UNIVERSITY
1865

Tau Beta Pi

CHAPTER ROLL

Alpha of Pennsylvania—1885	Lehigh University.
Alpha of Michigan—1892	Michigan Agricultural Colleg
Alpha of Indiana—1893	Purdue University.
Alpha of New Jersey—1896	Stevens Institute of Technology.
Alpha of Illinois—1897	University of Illinois.
Alpha of Wisconsin—1899	University of Wisconsin.
Alpha of Ohio—1900	Case School of Applied Sciences.
Alpha of Kentucky—1902	Kentucky State College.
Alpha of New York—1902	Columbia University.
Alpha of Missouri—1902	University of Missouri.
Beta of Michigan—1904	Michigan College of Mines.
Alpha of Colorado—1905	Colorado School of Mines.
Beta of Colorado—1905	University of Colorado.
Beta of Illinois—1906	Armour Institute of Technology.
Beta of New York—1906	Syracuse University.
Gamma of Michigan—1906	University of Michigan.
Beta of Missouri—1906	Missouri School of Mines.
Alpha of California—1907	University of California.
Alpha of Iowa—1907	Iowa State College.
Gamma of New York—1908	Rennselaer Polytechnic Institute.
Beta of Iowa—1908	University of Iowa.
Alpha of Minnesota—1909	University of Minnesota.

Tau Beta Pi

Beta Chapter of Illinois

Chartered 1909

SENIORS

Bailey, C. C.
Carlson, H. W.
Gentry, T. E.
Howenstein, W. K.
Livermore, J. D.
Neville, W. J.
Smith, M. A.
Squair, F. R.
Wernick, F. E.
Kinzel, A. J.
Eckert, J. M.
Gault, M. E.
Kloman, R. S.
Salisbury, R. H.
Steigley, A. C.
Thatcher, W. C.

JUNIORS

Binder, C. W.
Drew, W. W.
Hooper, W. T. F.
James, G. B.
Mabbs, J. K.
McCague, J. A.
Sieck, H.
Tellin, W. G.
Metz, F. W.

HONORARY MEMBERS

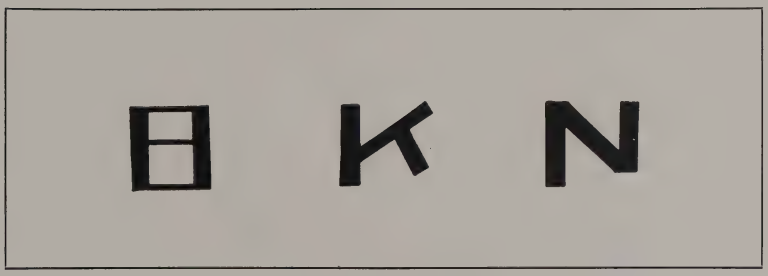
Raymond, H. M.
Arnold, B. J.
Coffeen, H. C.

FACULTY MEMBERS

Perry, R. V., '97
Libby, E. S., '02
Freeman, E. H., '02
Moreton, D. P., '06
Nachman, H. L., '02
Peebles, J. C., '05
McMullen, E. W., '09
Wells, M. B.
Willis, A. J.

THATCHER STEIGLY SALISBURY NEVILLE BAILEY KLOMAN
ECKERT LIVERMORE GENTRY HOWENSTEIN SQUAIR TELLIN WERNICK
CARLSON OSTERGREN MORETON RAYMOND FREEMAN NACHMAN SMITH

TAU BETA PI CHAPTER ROOMS



Eta Kappa Nu

CHAPTER ROLL

Alpha	University of Illinois
Beta	Purdue University
Gamma	Ohio State University
Delta	Armour Institute of Technology.

Eta Kappa Nu

Delta Chapter

Chartered 1909

SENIORS

Clarence C. Bailey
Alfred B. Chapman
Samuel W. McCune, Jr.
William J. Neville
Olin L. Richards
Edward B. Sherwin

JUNIORS

Edward C. Dobbie
Walter W. Drew
Gilbert C. Emmons
Percy W. Evans
Harold K. Hutton
William G. Tellin
Samuel R. Todd
Guy E. Williams
Lytton L. Williams

DOBBIE WILLIAMS WILLIAMS DREW ZEISLER
PACKER HUTTON TODD EMMONS CHAPMAN EVANS
RICHARDS TELLIN SHERIN BAILEY NEVILLE MCCUNE

OMEGA LAMBDA

Omega Lambda

Founded 1910

Local

—

SENIORS

Isaac Newton Baughman
John Morgan Eckert
Frank Edward Wernick

JUNIORS

Horace Lund Butler
Elmer Lucius Canman
Edward Chandler Dobbie
Walter White Drew
George Burkhart Hills
Raymond Frederick Jensen
Harold A. Merriman
Schuyler Morton Smith
Lytle Lytton Williams

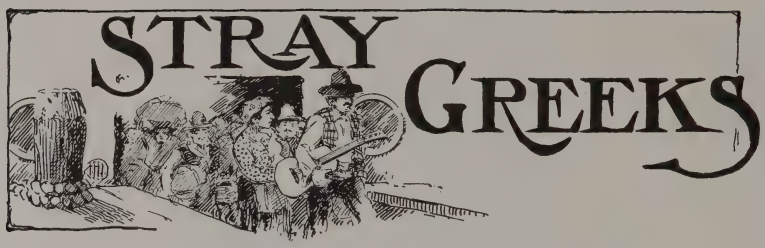
SOPHOMORES

Frederick C. Dierking Harry G. Todtmann

FRESHMEN

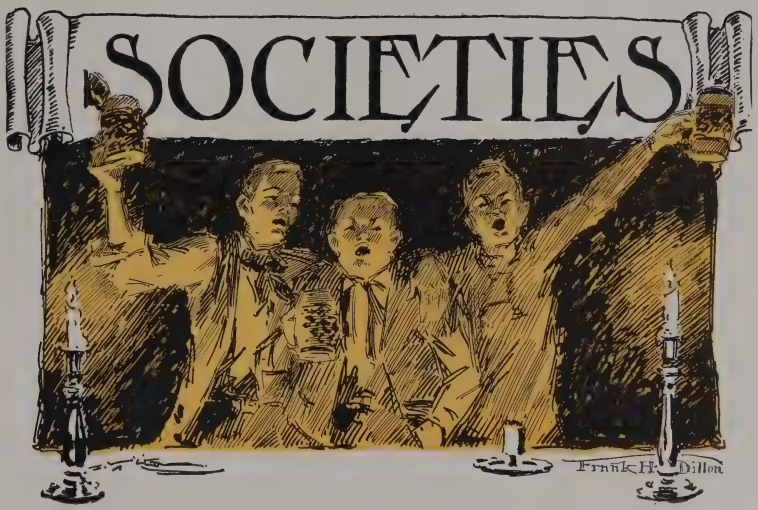
Don James Hamilton

BUTLER HAMILTON TODTMAN DIERKING MERRIMAN JENSEN DREW DOBBIE
SMITH WILLIAMS CANMAN WERNICK BAUGHMAN HILLS ECKERT

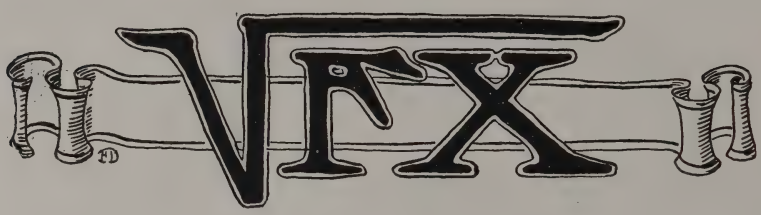


W. E. Thomas, '10	Phi Delta Theta	University of Chicago
O. L. Richards, '10	Phi Delta Theta	University of Chicago
A. B. Chapman, Jr. '10	Kappa Sigma	Washington University
J. T. Coates, '12	Kappa Sigma	University of Nebraska
Wm. Clarkson, Jr. '12	Beta Theta Pi	University of Texas
J. B. Smith, '12	Phi Gamma Delta	Ohio Wesleyan University
W. W. Moore, '12	Phi Kappa Psi	Northwestern University

"Fools, for argument use wages."



RADICAL X
FACULTY CLUB
SPHINX
CHAPIN CLUB
CAMERA CLUB
NEBRASKA CLUB
CIVIL SOCIETY
MECHANICAL SOCIETY
A. I. E. E.
CHEMICAL SOCIETY
HERTZIAN SOCIETY
Y. M. C. A.



Senior Radics

IN COLLEGE

Bailey, C. C.
Buck, G. W.
Bolte, E. E.
Jens, W. G.
McCune, S. W.
Munoz, F. J.
Pearce, R. P.
Vynne, E.
Richards, O. L.
Thomas, W. E.
Tobias, W. R.
Rogers, H. J.

OUT OF COLLEGE

Bunge, L. B.
Goodspeed, E. L.
Meek, A. R.
Noble, J. B.
Chesley, S. L.
Hough, H. R.
Moore, H. J.
Whitman, C. M.
Bruce, W. C.
Reynolds, J. C.
Fuller, Jr., F.
Kirkpatrick, C.
Sweet, F.

SENIOR
RADICS
1910
Bailey
Tobias
Vyhna
Pearce
Richards
Buck
Rogers
Bolte
Fahy
McCune
Munoz
Thomas

VFX

Junior Radics

IN COLLEGE

Burke, O. S.
Cleaver, T. G.
Hills, Jr., C. W.
Geisler, R. J.
Jones, H. W.
Kiley, L. D.
Miller, P. F.
DaSilva, C. J.
Johnson, H. S.
Tellin, W .G.
Corning, R. M.
Todd, S. R.
Evans, P. W.

OUT OF COLLEGE

Buckingham, A. W.
O'Brien, E. J.
Foster, H. O.
Strawbridge, R.
Vigeant, Jr., G.
Struble, G. H.
Austin, S. E.
Crawford, E. H.
Howard, R. B.
Lawrence, G. W.
Cooper, C. H.

EVANS TODD CLEAVER CORNING GEISLER
JONES BURKE KILEY HILLS

Sophomore Radics

IN COLLEGE

Chestnutt, R. C.	Clark, R. B.	Drew, R. S.
King, E. C.	Moore, M.	Rundell, T. F.
Witt, P. H.	Grassby, W. J.	Dunn, W. C.
Dierking, F. C.	Claar, R. S.	Bell, W. T.
	Niemz, A. M.	

OUT OF COLLEGE

Anderson, M.	Babcock, H. A.	Caswell, P. A.
Frary, P. V.	Hooper, W. D.	

RUNDLE TODTMAN DIERKING DREW
KING NIEMZ CLAAR CLARK BELL

VFX

Freshman Radics

IN COLLEGE

Young, B. A.
Adams, G. M.
Simpson, D. E.
Lawrence, M. F.
Schreiber, J. A.
Agee, R. E.
Drew, H. S.
LaRou, M.
Fryberg, W. F.
Arnold, J. H.
Weart, D. L.
Brewer, R.
Copenhaver, P. A.

OUT OF COLLEGE

Sowards, H. L.
Haynes, W. E.
McDonald, J. E.

DREW BREWER ADAMS WEART MOORE SIMPSON FRYBURG ARNOLD

Radic Doings

INFORMAL DANCE

IN the past it has been the custom for all the Radics to give a large formal dance at the end of each year, but although the dance has always been successful, there has always preceeded a warm discussion as to the advisability of giving a formal dance.

This year the stunt is being tried of giving informal dances every other month throughout the year and the first was held at the Ridge Country Club on October first. The night was perfect and the full harvest moon made the adjoining tennis courts very popular on which several "love games" were played. The party broke up in order to catch the 12:27 train back to town. Prof. and Mrs. Phillips kindly chaperoned the party and every one present enjoyed a very pleasant evening.

INITIATION SMOKER

Following the custom started last year of making the Freshman "ride the goat," the Initiation Smoker was held November sixth, at the Delta Tau Delta house.

Quite a little latent talent was developed during the evening as one of the Sophomores showed ability worthy of the Chicago Police force by arresting one of the Freshmen whose name we will refrain from mentioning, as he is President of the Freshman Class, while another Freshman showed remarkable oratorical ability.

The festivities ended with a Dutch Lunch and an entertainment by some of the alumni.

INFORMAL DANCE

The second informal dance was given November twelfth, at the old Masonic Hall in Englewood. The affair was very similar to the first dance and one of the features of the evening was the circle two steps which were very enjoyable.

INFORMAL DANCE

The third informal dance was held January fifteenth, at Shotwell Hall, and was as successful as the others. The crowd was small owing to conflicting social events, but that didn't prevent those that were there having the best kind of a time.

"The last suitor wins the maid."

RADIC BANQUET

'Twas a happy bunch of Radics new and old that congregated at the Bismarck, January 28th, 1910. Alumni far and wide had been notified of the occasion and the 1910 annual Radic Banquet was the best in history.

As was usual, the customary thirteen course banquet was served and between the courses the banquet hall rang with college yells and cheers The menu cards made tasty souvenirs, while the toast list was the perfection of originality. Vynne as toast master, and president of the society, elucidated on the various events of Radic history, while La Rue up-held the dignity of the freshmen by a song and dance on the table.

"Words pay no debts.

OFFICERS

1909

B. B. Freud	*President*
Dr. H. B. Thomas	*1st Vice-President*
C. W. Leigh	*2nd Vice-President*
C. A. Tibbals	*Secretary*
R. V. Perry	*Treasurer*

OFFICERS

1910

R. V. Perry	*President*
J. E. Snow	*1st Vice-President, 2nd Vice-President*
J. B. Finnegan	*Secretary*
N. P. Peterson	*Treasurer*

The Faculty Club Rooms are located in the basement of the Mission building. The main attraction is the billiard table, but the rooms also contain places for checkers, chess, reading, lounging and smoking. The membership role contains the names of all the members of the Institute faculty and the majority of them can be found at the club rooms any week day immediately after their mid-day repast.

At the beginning of the year a smoker was held and the new faculty members were welcomed into the club. Other smokers have been held and also billiard tournaments. The club has lost one of its best billiard players through the death of George F. Dietz. Earl W. McMullin is now the champion billiard player of the club.

"Knowledge comes, but wisdom lingers."

The Sphinx Society

OFFICERS

E. E. Bolte . . . . . *President*
M. A. Smith . . . . . *Secretary and Treasurer*

MEMBERS IN COLLEGE

Kiley, L. D.
Todd, S. R.
Vynne, E.
Weart, D. L.
Evans, P. W.
Bolte, E. E.
Thomas, W. E.
Carlson, H. W.
Hills, C. W.
Smith, M. A.
Richards, O. L.
Wernick, F. E.
McCune, Jr., S. W.

We now have at Armour three publications, the Integral, the Fulcrum, and the Armour Engineer. In order to have smooth co-operation between the different executive heads, we have as a common council, the Sphinx Society. The two heads of each publication are members ex-officio and any member of any staff is eligible to membership. Without this organization there would be a great deal of friction between the different publications as regards dates of publication etc., but under the supervision of this body everything is run smoothly.

The Sphinx Society not only is a managing and social organization, but is also an honorary society.

"The narrower the edge, the deeper it cuts."

THOMAS TODD MCCUNE EVANS

CARLSON KILEY WEART HILLS WERNICK

RICHARDS BOLTE SMITH VYNNE

The Simeon B. Chapin Club is now in its third year and it is still the popular gathering place of the students of the Institute. There is one thing necessary to an engineering student aside from study. That is recreation. The Chapin Club furnishes recreation of various kinds. There are many kinds of games in the rooms and the Club subscribes to a number of the popular magazines and to most of the scientific periodicals. Since the advent of the new billiard table last fall, the magazines and various games have been used less than before. The table was the gift of Mr. Simeon B. Chapin. He could have presented the club with nothing better. The table is in use continually and the players have to take their turns. A nominal fee per hour is charged for the use of the table and the money goes to the up-keep of the Club and table.

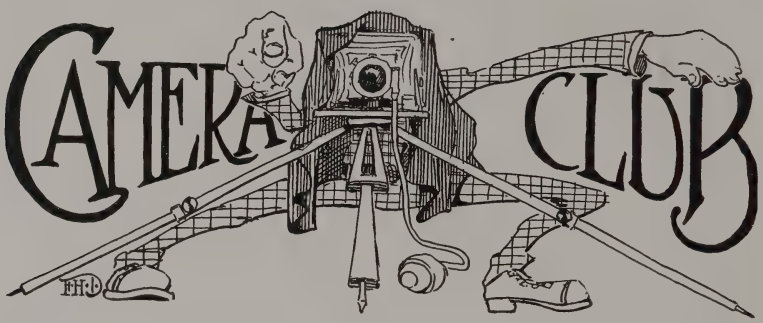
"Little things worry little minds."

The club rooms are used for the meetings of some of the societies at the Institute as well as by Chapin Club itself. The club rooms make a good place for the students to drop in for a smoke between classes. Many lasting friendships are made there and after a short time in the company of his fellow students in the club, a man can go to class feeling rested and fit for work.

In the billiard tournament held in the Chapin Club the first semester, Mr. Strawbridge carried off the honors as champion. He lost the first game, being defeated by Mr. Ahearn, but he played very close games with the rest of his opponents and in the finals defeated Mr. Pfaelzer by a score of 50 to 43. Those who competed in the tournament were: Mr. Moyses, Mr. McCague, Mr. Pasmanski, Mr. Peiser, Mr. Hall, Mr. Brandt, Mr. Sotz, Mr. Allen, and Mr. Strawbridge. The playing throughout was exceptionally fine, and the games were very close.

Mr. Peiser carried off the honors of the three-cushion tournament. Mr. Peiser defeated Mr. Strawbridge, Mr. Pfaelzer, Mr. Sotz, Mr. Ahern, and Mr. Pasimanski after many hotly contested games.

"Borrowing is the mother of trouble."



WHY is it that there is not a greater interest taken in the camera club? Certainly, anyone can understand the value of photography to an engineer. Every student should consider the study of the art a necessary part of his course at the Institute, especially when the cost is so small. That a few of the students take an interest in photography is shown by the annual exhibitions of the club. The pictures show an excellent knowledge of composition which is but a matter of practice and observation.

Membership in the organization is not limited to any particular class or classes, but is open to anyone in the Institution upon the payment of the small fee and the dues required. The members and officers for the school year 1909-10 are:

A. W. Nelson	*President*
R. C. Donaldson	*Secretary*
J. Bolotin	*Treasurer*

MEMBERS

W. F. Thomsen	B. T. Olsen
E. M. Fiske	A. W. Nelson
B. B. Freud	J. Bolotin
J. J. Daly	R. C. Donaldson

"There are two bores in society; the man who knows too much, and the man who knows too little."

NEBRASKA CLUB

WHO THEY ARE	WHERE FROM
R. R. Zack, '11 President	Shelby, Nebraska
H. P. Langstaff, '11 Vice-President	Blair, Nebraska
R. S. Claar, '12 Secretary	Blair, Nebraska
G. F. Cummins, '11	Omaha, Nebraska
G. V. Green, '11	Amherst, Nebraska
H. N. Parsons, '11	Omaha, Nebraska
R. R. Ross, '12	Blair, Nebraska
O. F. Abrahamson, '12	Holdredge, Nebraska
J. G. Coates, '12	Gordon, Nebraska
E. O. Wiederanders, '11	Gothenburg, Nebraska

CUMMINGS PARSONS COATES
ROSS LANGSTAFF ZACK GREEN

"Good instruction is better than riches. That's why we come to school."

Senior Civil Society

W. A. KELLER	*President*
M. A. SMITH	*Vice-President*
W. G. JENS	*Recording Secretary*
J. M. ECKERT	*Corresponding Secretary*
W. R. TOBIAS	*Treasurer*

CIVIL SOCIETY MEETINGS

October 18th—Smoker.

November 2nd—Construction of the Johnson Dam.
Prof. Dean

November 23rd—Ethical Responsibility of the Engineer.
Dean Monin

December 14th—Building of a Reinforced Concrete Bridge over the Illinois-Michigan Canal at Kedzie Avenue.
Mr. Tenn

"Incessant scribbling is death to thought."

DA SILVA GUTHIER MANDLER TOBIAS PEARCE EMMONS BUCK SMITH HAND STEVENS
GEISLER BREDLAU LASKY HAYNES JOHNSON BUTLER ANDERSON LETTERMAN DEVENEY ELIEL
CLEAVER HILLS SMITH PHILLIPS ARMSTRONG WELLS KELLNER ECKERT JENS
JONES ZACK BURKE MARX BINDER KELLNER SIMONS MUNOZ

MECHANICAL SOCIETY

OFFICERS

F. E. Wernick	*President*
W. E. Thomas	*Secretary*
H. S. Grenoble	*Treasurer*

SINCE the Publication of the last Integral, the local Mechanical Society has been chartered by the American Society of Mechanical Engineers, and is now one of the branches of the latter.

As has been in the past, the Society is devoted to recent developments in Mechanical Engineering, and during the year, papers are read by the members on Engineering Topics.

Membership in the Society is composed of the Senior Mechanicals and all Juniors who have finished their Sophomore work are eligible. This society is one of the most progressive of the Engineering Societies and has done a great deal toward creating interest among the students in up-to-date engineering.

"Woman's wealth is beauty, but learning that of men."

LEAVELL GRIFFITHS BECK BOLTE YOUNG CARLSON GILBERT BYERS
HOFFMAN CROCKER CANMAN BAUGHMAN THOMAS GRENOBLE BERGBOM AMBROSE
SIECK CUMMINS HATMAN HENWOOD ROBINSON MCCAQUE WERNICK

List of Meetings
Senior Mechanical Society

October 13th—Boiler Construction.	T. E. Gentry
November 10th—Installation of a Coal Handling Plant.	W. E. Thomas
November 17th—Gas Engines.	C. E. Beck
December 8th—Gas Engines.	Prof. Frith
January 5th—Test of a Gas Turbine.	I. N. Baughman
February 2nd—Gas Producers.	C. C. Sampson, '08

March 2nd—Comparison of Efficiencies of Centrifugal and Rotary Pumps.
H. W. Carlson

"There is no wealth like unto knowledge for thieves cannot steal it."

Aeronautics

The rapid development of aerial navigation has led the Institute to offer instruction in the important branches of this subject. The object of the course is to prepare students for experimental and practical work in aeronautics.

The elements of what is known of the scientific principles upon which the art of flying is based are taught. Students are made acquainted with the work and results of the principal experimenters, and also with the methods of construction now used in successful air ships and aeroplanes, including motors. These courses are elective and open to Juniors and Seniors of all departments.

SUBJECTS OF INSTRUCTION

I. Aerodynamics.

The work in this subject includes the study of fluid resistance, stream line forms, the economics of flight, the theory and efficiency of the screw propellor, and experimental aerodynamics. Published accounts of experiments, including the latest available, are drawn upon for data on which to base mathematical studies of the problems of flight.

II. Aeronautical Designing.

The studies include the stresses in the principal types of baloons, air ships and aeroplanes now in use, and the designing and detailing of these structures.

III. Gas Engines.

Elementary theory, construction and practical working of light-weight gas engines.

The courses were originally meant to begin next fall, but a number of Seniors wanted to take the first named course, so a class was started at the beginning of the second semester. The class has proved very interesting and beneficial to all.

"Education is the chief defense of nations."

A. I. E. E.—ARMOUR BRANCH

E. B. SHERMAN . . . . . *Chairman*
PROF. JOHN E. SNOW . . . . . *Local Secretary*
SAM W. MCCUNE . . . . *Recording Secretary and Treasurer*

ARMOUR BRANCH A. I. E. E.

The Armour branch of the American Institute Electrical Engineers was founded in 1903, and since that time has filled a long felt want at the "Tech." The membership is confined to all the student members of the parent A. I. E. E. of New York. So great is the interest that is taken in the organization that almost all of the members of the Junior and Senior classes are active members.

In previous years it has been the policy of the branch to have some practical engineer lecture at the meetings on some topic of general interest. During the past year, this policy has been changed to the extent that the members of the branch have given papers at the different meetings.

During the past year, due to the untiring efforts of Chairman Sherwin, the Branch has had one of its most successful years and with the present Junior class so well represented in the organization the outlook for the coming year is very promising.

"If I were not a king I would be a university man."

EMMONS NEVILLE THATCHER DOBBIE
LOHSE WITTE WILLIAMS WILLIAMS GRAY SCHMIDT GOLDBERG HUTTON TELLIN
MCGUIRE MOYSES GODFREY ROSENTHAL EICHENBERG ANDERSON FLETCHER HAY
DREW PACKER SHERIN SNOW FREEMAN MCCUNE TODD NEWHOUSE BAILEY
DE TAR KONICEK HEITNER ZEISLER EVANS RICHARDS BAER

A. I. E. E. Meetings

September 23rd—Business meeting.	
October 7th—Sprague General Electric Automatic Control.	E. B. Sherwin
October 28th—Railroad Block Signalling.	C. C. Bailey
November 18th—Discussion of the Great Northern Electrification.	
December 16th—Wireless Telegraphy.	Prof. G. E. Marsh
February 3rd—Interior Wiring.	G. E. Williams
March 17th—Hydro-electric Development.	W. J. Baer

"The fool wonders, the wise man asks."

OFFICERS

H. W. Martin	*President*
G. Starman	*Vice-President*
F. R. Squair	*Secretary*
E. F. C. Pohlman	*Treasurer*

MEMBERS

SENIORS

H. W. Martin
E. F. C. Pohlman
F. R. Squair
G. Starman

JUNIORS

H. Sieck
G. B. James
P. G. Pirrie
P. F. Miller
H. S. Johnson
G. V. Green
H. Bornstein
J. O. Lowe

SOPHOMORES

H. A. Beifeld
H. C. Dormitzer
J. Goldstein
G. E. Gundaker
J. C. Hoehn
S. Kahn
P. Malekow
R. C. McGinnis
Chas. Ness
J. J. Newman

"Live to learn and you will learn to live."

Chemical Engineering Society

At the first business meeting the name of this society was changed from the Senior Chemical Society to the Chemical Engineering Society, and an amendment to the by-laws was made whereby all the first semester juniors are eligible for active membership and all second semester sophomores are eligible for associate membership.

In addition to the regular business meeting of this society there have been held four special meetings for the presentation of papers.

At the first of these meetings Professor McCormack speaking on "Why I Became a Chemist," gave some interesting and some amusing experiences, which, perhaps, no one but a chemist could fully appreciate. At the second meeting Professor Freud presented a paper on "The Spectroscope in Chemistry," with special reference to star spectra, which is a practically new and unexplored field of chemistry. After the lecture many questions were asked and ably answered by Prof. Freud.

The society was exceptionally fortunate at its third meeting in having Mr. Rudnick, chief consulting chemist for Armour and Co. Mr. Rudnick spoke on "The Organization of an Industrial Laboratory," and his talk and the discussion which followed, proved to be exceedingly interesting and instructive.

Professor Tibbals presented a paper at the fourth meeting entitled, "An Introduction to the Rarer Metals." Professor Tibbals knew his subject thoroughly and gave a talk which aroused much interest and was greatly appreciated.

The society gave its first banquet on December 16, 1909, and this was so well attended and so successful in every way, that it was immediately decided to have another towards the end of the second semester, to which the alumni would be invited. Preparations for this banquet, which is to be especially elaborate, are progressing steadily, and we have all reasons to expect an enjoyable time on this occassion.

"Be ashamed of asking is afraid of learning."

OLSEN BEIFIELD BORNSTEIN JAMES LOWE GOLDSTEIN
KAHN GREEN MILLER SIECK NEWMAN POHLMAN HOEHN JOHNSON
TIBBALS SQUAIR MARTIN MCCORMACK STARMAN MCGINNIS FREUD PIRRIE
GUNDAKER MCMULLEN BOND GILL DORMITZER MALEKOW

The Hertzian Society

ON Friday, April 30, 1909, a new society was formed at Armour Institute. The object of the society is to investigate the mysteries of wireless telephony and wireless telegraphy in all their phases. The organization was effected through the efforts of Professor Marsh of the Electrical Department of Armour Institute.

The upper classmen of all courses are eligible for membership in the society. A constitution was brought up and adopted, and the following men elected as officers: President, D. Pettibone; Vice-President, A. S. Weber; Treasurer, D. A. Whitaker; Secretary, F. W. Metx.

The society has now quite a few members, and Professor Marsh, who lectures to the society every Friday from 5 to 6 o'clock in the afternoon, has specialized in this branch of science.

The officers for this year are as follows:

D. A. Whitaker	*President*
O. A. Witte	*Vice-President*
Walter Heitner	*Secretary*
W. P. McGuire	*Treasurer*

PIE CLUB

THE CALL TO ASSEMBLE
"Come on Fellows, the Pie's here."

COLORS
Apple and Mince

DUES
Five cents per meeting.

PASSWORD
Lemon (Pie)

High Class Pi—ker . . . . . Ahern
Assistant Pi—ker . . . . . Lotz
Pie—Face . . . . . Spindler

LORD CHANCELLOR OF THE PIE
Bloomfield

KEEPER OF THE PIE PLATES
Zimmerman

LOOKOUTS, SCOUTS, ETC. (For Coffen and Nachman)
McGuire Boettcher Nelson

PIE CHASERS THREE
Mabbs Anderson Johnson

FAVORITE PIE
"Tau Beta"

OFFICERS

J. A. M. Robinson	*President*
E. F. C. Pohlman	*Vice-President*
R. B. Ambrose	*Recording Secretary*
R. J. Geisler	*Department Secretary*

BOARD OF MANAGERS

Prof. G. M. Wilcox, Chairman	N. P. Petersen
Prof. C. W. Leigh	H. W. Carlson
Prof. G. L. Scherger	E. F. C. Pohlman
Mr. F. U. Smith	R. J. Geisler
Prof. T. E. Doubt	J. A. M. Robinson

STUDENTS DEPARTMENTS OF THE CHICAGO Y. M. C. A.

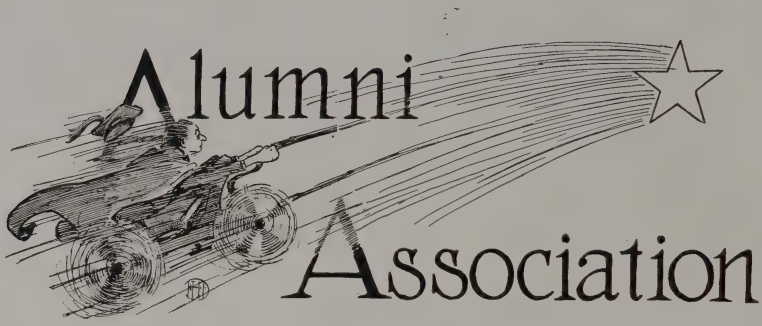
Armour Institute of Technology.
Chicago College of Dental Surgery.
Hahnemann Medical College.
College of Physicians and Surgeons.
Northwestern University Medical School.
Northwestern University Law, Pharmacy and Dental Schools.
Rush Medical College.
The University of Chicago.

The Y. M. C. A. at Armour is one of the Student Departments of the Chicago Y. M. C. A. and is a large factor in the school life. At the beginning of every college year it holds the Freshman Handshake in the Lunch Room, at which all the Freshmen get a chance to meet the uper classmen and get acquainted.

The association has rooms in the flats in which magzaines are on file and games for the use of students.

"Economy is too late at the bottom of the purse."

HESS ROTHWELL DOUBT PETERSON AMBROSE
SCHERGER LEIGH SMITH WILCOX



OFFICERS OF THE ALUMNI ASSOCIATION
1909-1910

William Simon Gansig, '03	*President*
Edwin Jesse Hiller, '04	*Vice-President*
Henry Jacob Sawtell, '06	*Treasurer*
Thomas A. Banning, '07	*Recording Secretary*
James Clinton Peebles, '04	*Corresponding Secretary*
Allen Boyer Benedict, '04	*Master of Ceremonies*

The Armour Institute of Technology Alumni Association was organized for the purpose of bringing the graduates of the Tech. in closer touch with each other, after graduating from college. The association has had a most successful existence and is fast becoming one of the most important factors of the Institute. Great assistance has been given to the school by the association, both in suggestions as to the curriculum and in aiding new graduates to secure positions.

The Alumni Association is composed of three classes of members, active members, or those who are graduates of the technical college; associate members, or those who have completed at least two year's work in the technical college; and honorary members, or those to whom the association sees fit to extend honorary membership. There is a branch organization in Pittsburg.

The membership now numbers about five hundred actives. seventy-five associates, and ten honorary members. Banquets and meetings are held during the year and are very well attended.

"It is as easy to be a lead horse as a wheel horse."

SOCIETY

Social Calendar

September 17th.	Freshman Handshake.
September 28th.	Freshman Smoker at Art Institute.
October 1st.	Radical X Informal, Ridge Country Club.
October 19th.	Civil Society Smoker.
October 20th.	Architect's Halloween Party.
October 22nd.	Phi Kappa Sigma Informal.
November 6th.	Radical X Smoker, Delta Tau Delta House.
November 9th.	A. I. E. E. Smoker.
November 10th.	A. S. M. E. Smoker.
November 13th.	Radical X Informal, Englewood Masonic.
November 19th.	Freshman Smoker, Oakland Music Hall.
November 20th.	Delta Tau Delta Informal.
December 3rd.	Senior Dance, Lakeside Club.
December 10th.	Phi Kappa Sigma Informal.
December 11th.	Glee and Mandolin Club Concert.
January 7th.	Junior Architects Dance.
January 14th.	Interchapter Prom, Delta Tau Delta—Congress Gold Room.
January 15th.	Radical X Informal.
January 27th.	Architects Matinee Informal.
January 28th.	Radical X Banquet, Bismarck.
February 4th.	Junior Dance, Colonial Club.
February 4th.	Tau Beta Pi Dance, Masonic Temple.
February 17th.	Architects Matinee Informal.
February 17th.	Phi Kappa Sigma Informal.
February 18th.	Annual Atelier Dance.
February 19th.	Delta Tau Delta Annual Banquet.
March 15th.	Junior Architect Dance.
March 10th.	Architects Matinee Informal.
March 11th.	Glee and Mandolin Club Concert.
April 18th.	Omega Lambda Initiatory Banquet.
April 1st.	Architects Matinee Informal.
April 8th.	Sophomore Dance.
April 15th.	Phi Kappa Sigma Informal.
April 29th.	Freshman Dance.

"Learning is better than house and land."

BASEBALL BANQUETS

May 28th, 1909. Bismarck Hotel.

Coach Smart presided at the banquet and his ready wit enlivened the festivities and put everyone present in a humor which attends a pleasant evening. "Juice Jens," the famed pinch hitter, was chosen to guide the destiny of the 1910 team. After the repast a number of short speeches were made and then the assembled company adjourned to the Garrick theatre.

TAU BETA PI

November 5th,, 1909. Great Northern Hotel.

Tau Beta Pi held its fall initiation and Banquet on the evening of November 5th. The local chapter initiates, and the members of the Chicago Alumni Association of Tau Beta Pi, enjoyed a splendid Banquet and a good time.

CHEMICAL SOCIETY BANQUET

December 16th, 1909. Boston Oyster House.

The Chemical Society met at the Boston Oyster House on December 16th and enjoyed a pleasant evening in the form of a banquet. After dinner speeches were made by the faculty men and also by some of the students. The banquet was such a success that a still larger one will be given in May.

"Every man has his Waterloo."

RADICAL X BANQUET

January 28th, 1910. Bismarck Hotel.

The Radics held their Banquet, January 28th, 1910, at the Bismarck. Quite a number of Alumni showed up, and the original menu cards which indexed the thirteen courses and the toast list, made appropriate souvenirs. Far into the small hours of the morning the strains of old Armour and Radic songs inter-mingled with tobacco smoke filled the hall.

JUNIOR BANQUET

May 7th, 1909. Boston Oyster House.

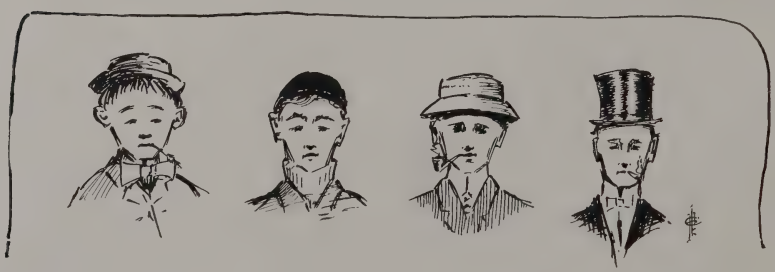
The class of 1910 held their annual Junior week banquet at the Boston Oyster House on May 7th. This was the last of the Junior week festivities and every one enjoyed a good time.

Dean Raymond and Dean Monin were there and responded to toasts. After the banquet, the bunch repaired to the buffet, and after persuading the bartender to keep the place open, they did their best to violate every closing ordinance instituted by mayor Busse. It is even rumored that Carlson, our worthy Y. M. C. A. representative, drank so much punch that he made an eloquent speech on the benefits to be derived from membership in the Armour Y. M. C. A.

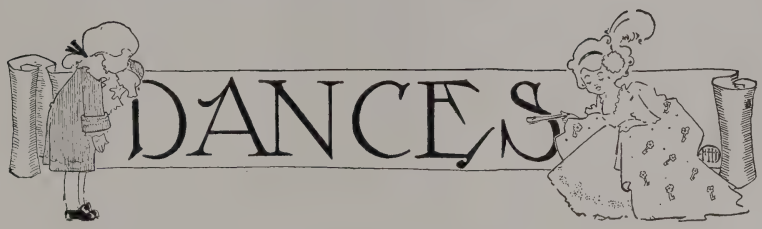
ETA KAPPA NU BANQUET

March, 1910. Stillson's Restaurant

The Eta Kappa Nu Electrical fraternity held their initiation banquet on March 18, at Stillsons. At this banquet the new men were welcomed into the fraternity and a general good time was enjoyed by all.



"Doubt is the key of knowledge."



RADICAL X DANCE
October 1, 1909

THE first dance of the college year was given by the Radical X Society on Friday evening, October 1st, at the Ridge Country Club. The dance was strictly informal, and was given principally to get acquainted with the Freshmen who had just been taken into the society. Favorable chance was truly with the Radics on this occasion, for one of those very rare, perfect moonlight nights was furnished. And it will be admitted that such an evening appeals to a person in an especial manner away off from the city in such a place as Tracey, where the Ridge Country Club is located.

After a somewhat long, although universally enjoyed ride on a Rock Island local train, some forty-five members of the society, and the same number of persons wearing Radic pins, assembled in the hall to enjoy the first dance, which was played at about 8 o'clock. From that time until 12 the dancing continued with but short intermissions between long dances and with everyone having the very best kind of a time. The music was furnished by Mr. C. A. Lawrence and assistant of Lawrence's Orchestra, which has furnished such excellent music for so many Armour dances.

RADICAL X INFORMAL
November 13, 1909

Yes, it's a fact that one wore red and black and that the other wore black and red. Also, the one who wore red and black danced all evening with the one who wore black and red—very stunning, don't you know.

The occasion referred to was that of the Radical X Informal, which was given at the Old Masonic Temple in Englewood on November 13th, and on which occasion the aforesaid reds and blacks were so in evidence.

Although the night was dark and rainy, practically the entire active membership of the organization and several alumni were present to enjoy this second Radic dance of the semester. But it's always fair weather when a bunch of Radics get together.

"No trials, no triumphs."

SENIOR DANCE
December 3, 1909

Yes, it has come and gone, the last dance that will ever be given by the Class of 1910; but not one of the two hundred couples who were there will ever forget that evening of December 3rd at the Lakeside Club. From the moment that the first notes of music by the Lawrence Orchestra were heard at 9 o'clock until "Home, Sweet Home" at 1, the Armour spirit abounded in all directions, and all enjoyed themselves to the utmost. The faculty and alumni were there in large numbers; the stair-cases, window seats, and fire-escapes proved their great popularity; and the distinctive programs brought forth praise and admiration from every quarter for the social committee which worked so hard and achieved one of the most successful dances ever held at Armour.

RADICAL X DANCE
January 15, 1910

The first dance given by the Radical X Club since the holidays was held at Shotwell Hall, Fifty-fifth Street and Washington Avenue, Saturday evening, January 15th.

The affair was voted by all the actives present as the very best pulled off by the society yet this year, while several of the alumni who were present, and added greatly to the occasion, expressed themselves as highly pleased over the renewed Radic activity and the successful dance.

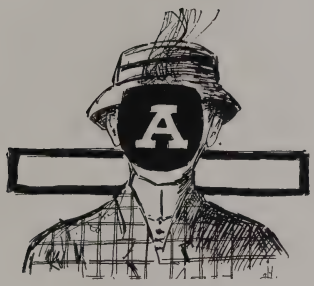
The old musical friend of the Institute, and of all Radics especially, Mr. Charles A Lawrence, held sway over the music and earned for himself high praise and admiration from his friends for the part he played in calling off several decidedly interesting circle waltzes. As usual, these made the great hit of the evening and furnished so much amusement that several of the young ladies expressed themselves as being in favor of a continuous performance. The floor was slippery and everyone bent on having a good time so that several of the fellows, found themselves flying through space at an alarming velocity and deposited in the chairs at the sides when one of the crowd lost his hold of his partners hand in circling. It is to be hoped that such popular forms of dancing will always be featured at the society's parties.

JUNIOR DANCE
February 4th, 1910. Colonial Club.

The class of 1911 held their Junior dance at the Colonial Club. Like those of former years, the dance was an unqualified success, and a great deal of credit is due the social committee who has engineered the 1911 dances for the past three years.

Lawrence furnished the music, and to the tuneful strains of waltzes and two-steps, fully one hundred and fifty couples tripped around the hall. The programs were of very neat design with the crest of the school blazoned on the outside. This dance was the first to prove a success financially of all the class dances.

"Who knows nothing, doubts nothing."



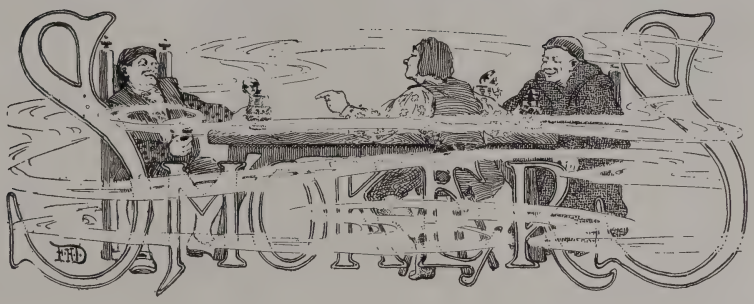
The Freshman Smoker

WELL, for the time, Armour had a safe and sane Freshman Smoker. On that notable evening Friday, November 19, at Oakland Music Hall, the three upper classes in conjunction with the faculty entertained the class of 1913. The general rowdiness and disorder which have characterized previous smokers was conspicious by its absence, and in its place an affair which has yet to be equaled, went down in history. The well directed efforts of the committee were evidenced by the steady flow of "doings," leaving no time for the bunch to become restless. The Juniors, as became their dignity, left the "Instruments of Torture" with which they monopolized the noise of last year's smoker, at home. The souvenier of the occasion was a "gravity" pipe, with a rubber stem and an "A" carved on the bowl.

The program of entertainment was a "howling success" and the impromptu ?— speeches of the profs left no doubt as to whether or not all had come *prepared* to have a good time. Between the acts, various Armour and popular songs were thrown on a screen, and the voices of that mighty throng could be heard for miles. Even Dr. Gonsaulus, dean Raymond and Monin had the nerve to "light up" with one of the new pipes and some "Cowboy's Delight." About the middle of the evening, the curtain went up disclosing the formidable Integral camera with the accompanying pictures were taken. It was about 11:30 when the last man took Vic Cole out, and the bunch repaired to various nearby restaurants to satiate the desire of Cap Larson's invention.

"He alone is poor who does not possess knowledge."

THE FRESHMAN SMOKER



CIVIL SOCIETY SMOKER

On Tuesday evening, October 19th, the Civil Society held a smoker in Chapin Hall. Most of the Juniors turned out and all the faculty members were present. A short meeting was held, after which all adjourned to the Chapin Club, where good cigars and cigarettes were on hand; the new billiard table was given a workout; and enough cider, doughnuts and sandwiches were consumed to feed an army. No attempt was made at having any special program for the evening, as the object of the smoker was more to promote a spirit of fellowship between the students and faculty.

RADICAL X SMOKER

With the new "get busy" spirit which seems to have permeated the Radical X Society, a smoker and Freshman initiation were held at the Delta Tau Delta Fraternity House on Saturday, November 6, 1909. Nearly all of the active Radics were present and also a good number of the Alumni. The new Freshmen were treated to an initiation of no small consequence consisting partly of parading down Michigan Boulevard and Thirty First Street single file and blind-folded singing the Armour Y. M. C. A. After this light amusement they were then taken back to the fraternity house and made to undergo some of the awful ordeals necessary to become a Radic.

"Learning makes a man fit company for himself."

A. I. E. E. SMOKER

A smoker was held at the Chapin Club rooms on Thursday evening, November 9th, by the Armour branch of the A. I. E. E. One particularly helpful feature was the attendance of the professors of the electrical department, who showed by their presence that they are with us to keep the branch up to the usual standard of the past. After the usual 25-cent cigars, etc., an informal meet ing took place. Prof. Freeman spoke on the topic, "Painless Extraction of Armature Teeth," after which the other professors added a few words. The professors entertained the bunch with a game of billiards (?), Prof. Snow being the star performer. The lights then went out, so that the smoker had to be adjourned.

A. S. M. E. SMOKER

The Mechanical Society wishing to uphold the dignity of that worthy organization in fact, and name, gave a smoker for the benefit of the members on November 10, 1909. In the early part of the evening Bergbom did a few fancy gymnastics on the mahogany rag box, commonly known as the piano, while other worthy members of the society endeavored to come to his rescue with the joyful execution of a little vocal expression. Strange, but true, the cognomen "smoker" was rightfully applied, and through the bluish haze stude and prof. alike, mingled with all class room affairs forgotten. Cider and pretzels added the finishing touch to the evening's enjoyment.

"When all else is lost the future still remains."

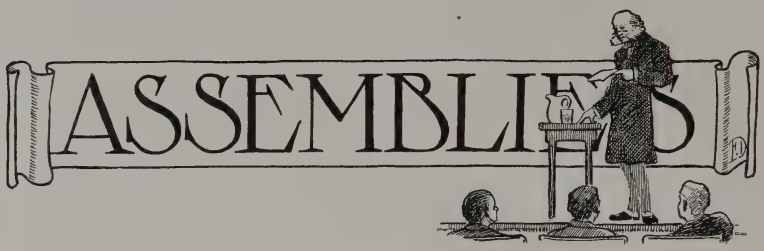
The Freshman Handshake

ON Friday evening, September 17th, the annual Freshman Handshake was held in the Institute Lunch Room. Everyone who came was given the "glad hand" and passed it on to the next one. Those who were not present missed the finest time of their lives and have themselves to blame for it. Even the inhabitants of Africa, who were assembled outside the door, enjoyed the evening.

Mr. Foster, the Department Secretary of Central Y. M. C. A., and Mr. English, Secretary of the Chicago Student Department, were the speakers from outside the Institute. They told the men of the enjoyment and benefits to be derived from the Y. M. C. A. They were desirous that the Armour Branch should become a large organization. Mr. Smart who had spent the afternoon with a friend who had been assulted by "Giants" out near the Cook County Hospital, was the next speaker of the evening. He gave a very interesting talk.

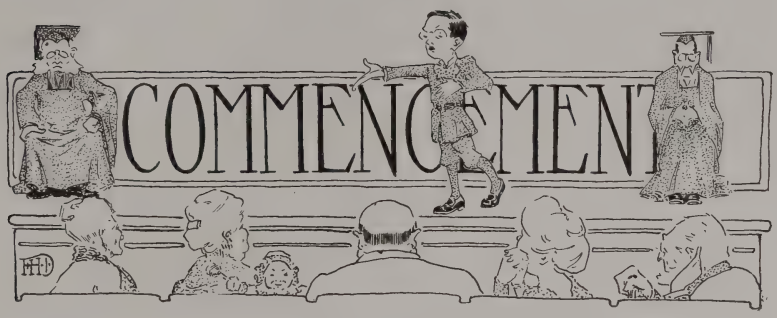
Mr. Olin Richards was the official musician for the evening, but was unable to be present the first part. Mr. Powell kindly consented to play for the crowd. After a little music, Miss Cole gave several readings which were enjoyed by everyone. When Richards came he gave some of his excellent music, and everyone sang. Somebody went outside and brought in two little "choclate drops" who did a few war dances until "Cap" Larson came into the room. From his actions and words we are led to believe that "Cap" does not care much for dark meat. Lemonade and cake were served and everyone went away in the best of spirits.

"Honest is the cat when the meat is out of reach."



March	15, 1909.	Mr. Frank Spaight of London, England—"David Copperfield."
March	19, 1909.	Mr. Frank Spaight of London, England—"Pickwick Papers."
Sept.	10, 1909.	Dr. Gunsaulus.—Opening Address of the Year and Musical program.
Sept.	16, 1909.	Taft Day Assembly.
Nov.	24, 1909.	Mr. Amsbury—Readings.
Nov.	30, 1909.	Mr. Williams—Song Recital.
Jan.	3, 1910.	Mr. Wm. Eliot Griffis—"Japan and Things Japanese."
Jan.	4, 1910.	Mr. Wm. Eliot Griffis—"Japan and Things Japanese."
Feb.	4, 1910.	Royal Prize Welch Choir—Song Recital.
Feb.	28, 1910.	Dr. Harry S. Prichett—"The Brethren of the Common Life."
April	1, 1910.	Musicale.

"He that wants is the purest man alive."



PROGRAM OF EXERCISES

Organ . . . . . Selected

PROCESSIONAL

March . . . . . March

Mr. Allen Bogen

PRAYER

Prof. William A. Colledge, D. D.

Quartet . . . . . Selected

Mrs. Anna B. Northrop. Mrs. Emma B. Hodge
Mr. Calvin S. Cox Mr. George H. Iott

THE ANNUAL COLLEGE ADDRESS

Dr. Charles Franklin Thwing
President, Western Reserve University, Cleveland, Ohio

Quartet . . . . . Selected

COMPTROLLER'S ANNUAL REPORT

CONFERRING OF DEGREES

BENEDICTION

"Better ask twice than lose your way once."

THE GREAT KORHASSIAN CARNIVAL

THE MOST

Magnificent and Gigantic

ORGANIZATION

that has so far visited this Planet

A Conglomeration of the most Glittering Lights
of Armour Tech forming a Spectacular Array
of Scintallescent Talent in many Marvelous Maneuvers
and Death Defying Deeds of Daring

The Hilarious High Lights of the

M. E.s Meaning Mud Eaters
E. E.s " Effervescent Excrescences
C. E.s " Cherubic Exasperators
Ch. E.s " Cheroot Extinguishers

Will introduce for the first time a Razzle Dazzle Concoction of Keen Originality in Company with the Renowned Renovators of Old News—*The Scrumful Staff.*

TENT NO. 1.

No Admission Except by Complimentary Ticket.

Exhibit A

"Here we have the magniloquent W. E. Thomaso. Between his social dates he has been known to hang around the Institute in the capacity of a Senior. He is the proud owner of a "profile," the only one in this book."

Exhibit B.

"Lizzie Robinson, second cousin to C(a)rusoe as now almost extinct species, will execute a few snake dances of his own design.

The show begins immediately; step right in, ladies first please."

Exhibit C.

"This bovine creature was captured in the wilds of Australia by three fearless fire-eaters in search of a home. He has been catalogued as one of the Fenn tribe, but that is not his fault."

TENT NO. 2.

Exhibit A.

"This example of eloquence was found roaming the wilds of a desert isle, alone and deserted. Without a doubt, he would have joined the wild tribe of Fedincks had his name been otherwise than Emmons. He will fearlessly monkey with Stray currents and imitate a shock absorber on a volt-meter."

Exhibit B.

"Spaghett the Terrible. The Raving Rival of Mark Antony or How To Get an Add. Todd the Tony has shown wonderful ability in different lines, but in his special feature of this perf ormance, will illustrate his method of subduing salubrious Profs."

"He eats 'em alive." "Step right up."

Exhibit C.

Handsome HARRY. He was secured for a single performance, (to begin in five minutes), from the treasure cave of the Jolly ROGERS. When he smiles, the whole world laughs. He is worth the price of admission alone, and to each and every person attending this performance, he will present a beautifully embossed recipe for freckles.

TENT NO. 3.

Exhibit A.

Harverino Bones will lecture this afternoon on the benefits of his exhilarant exasperator, the first and only one to fly in stright lines. After describing a few hyperbolas on a trapezium, suspended in mid-air, Haverlino will sing that touching ballad "leave me," or "a stone in the hand gathers no moss," accompanying himself on the mouth organ.

"Nothing so easy as revenge, nothing so grand as forgiveness.

EXHIBIT B.

Hynes, Hynes what's the matter with Hynes. "Step up now just a little closer please, don't crowd, that's better, pardon me lady, but this is a bum dime." This human, if we may call it such, spends his time following in the furious pursuit of the wild eyed canteloupe, and for the special benefit of the absent ones, will to-day imitate a mustard seed making a home run.

EXHIBIT C.

Owing to being "unavoidably sick," Long George will not be able to give his original Salome.

TENT NO. 4.

EXHIBIT A.

"Ladies and Gentlemen," before telling you of the origin of the Siecks, I wish to impress you with the importance of absolute quiet. One of their minor stunts will be to drive their roadster along a picket fence all the while balancing a motley assortment of test-tubes on their physiognomy.

EXHIBIT B.

Hilarious Herbert will give an illustrated lecture on "Food for Thought," or "How to Mix a Martin(i)." Please disregard his feelings, as he is of a very sensitive nature, and keep your feet out of the chorus of his illustrated songs.

TENT NO. 5.

THE SCRUMFUL STAFF

These three men were secured by Korhassian at great trouble and expense.

EXHIBIT A.

Edward Endicott Bolte which translated into English means the Erronious Expressor of Bum News. This is the only living example of the ancient race of stone cutters who were wont to issue the Ladie's Stone Journal, B. C., 40,000. This famous antique holds the illustrious position of Editor-in-chief by virtue of his being the only living representative of the aforesaid Stone Journal.

EXHIBIT B.

Eustace Vynne, a truly modern Marc Antony when it comes to fussing. He serves as a member of the Scrumful staff in the capacity of grafter of all cash and chief absconder of the funds. He is tall of stature and cannot be overlooked. He has been seen around Armour Institute at times and is thought to have registered at one time as a a C. E.

EXHIBIT C.

Percy Wilson Evans. Here it is ladies and gentlemen. The real specimen of the Pee Wees. He is second to one only in the illustrious art of editing bunk. Between his fussing dates, and a few hours at "college," he fights hand in hand with Exhibit A to graft what he can from the Scrumful strong box. At present he is designing inverted lights for aeroplanes.

"Castles in the air cost a vast deal to keep up."

Junior Week Program

Tuesday, May 4, 1909—
Ball Game—A. I. T. vs. St. Ignatius College. Score 11-9.

Wednesday, May 5, 1909— Junior Play—"A Musical Bun."

Thursday, May 6, 1909— Dance for Junior Class at Armour Square.

Friday, May 7, 1909— Junior Class Banquet at the Boston Oyster House.

Saturday, May 8, 1909— Opening night at Forest Park.

JUNIOR CLASS PLAY

Sacred to the Memory

of the time honored Class Rush

A Phase of Armour Life that was dear to all

May it Rest in Peace

ARMOUR TECH
A
10
GLEE AND MANDOLIN CLUB

Glee Club

OFFICERS

G. V. Green . . . . . *President*
W. E. Thomas . . . . . *Vice-President*
R. C. Chestnut . . . . . *Secretary*
R. W. Tobias . . . . . *Business Manager*

FIRST TENORS

Charles H. Marx, '11
Thomas Bjorge, '12
Arthur L. Bergbom, '10
George F. Ford, '13

SECOND TENORS

Eustace Vynne, '10
George Anderson, '12
Eugene M. Fiske, '13
Harold E. Tomlinson, '13
Arthur A. Byers, '10
G. Vernon Green, '11
Olin L. Richards, '10

FIRST BASS

Philip Francis Miller, '11
Joseph Alan Goldberg, '13
Tirrell J. Ferrenz, '11
Howard Cheney, '11
Ronald B. Clark, '12

SECOND BASS

Hiram H. Livingston, '13
Ralph C. Chestnut, '12
Fred. C. Dierking, '12

Mandolin Club

Thane G. Cleaver, Leader Corydon D. Smith, Director

1st MANDOLINS

Thane G. Cleaver, '11 Fred. Schmidt, '11 Jack Galbraith, '12
Robert F. Kirkham, '13 Dudley E. Simpson, '13

2nd MANDOLINS

William E. Thomas, '10 Henry Dormitzer, '12 Leroy D. Kiley, '11

VIOLINS

George Anderson, '12 H. E. Pasmansky, '12 Felix B. Miller, '13

FLUTE BANJO PIANO

Charles W. Binder, '11 V. L. Gallagher, '12 Arthur L. Bergbom, '10

"The hasty man never lacks trouble."

THE GLEE AND MANDOLIN CLUB

ATHLETICS

WEARERS of THE "A"

BASEBALL

Taylor, '11
Daly, '10
Da Silva, '11
Deveney, '10
Dreffein, '12
Eliel, '10
Jens, '10

BASKETBALL

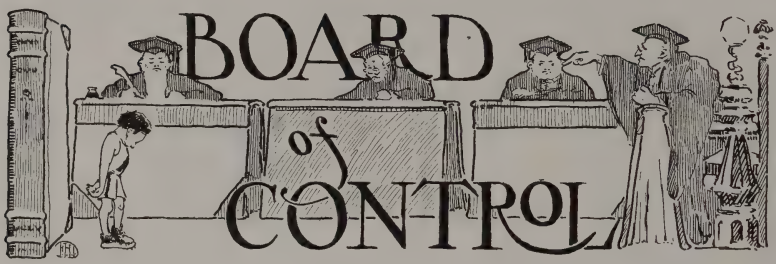
Vynne, '10
Eliel, '10
Cheney, '11
Drew, '13
Dierking, '12
Simpson, '13
Hamilton, '13

TRACK

Hotchkin, '10
Kellner, '11
Cheney, '11
Richards, '10
Bristol, '10
Powell, '11

FOOTBALL

Hotchkin, '10



PRESIDENT

Prof. C. W. Leigh

SECRETARY

G. C. Bristol

TREASURER

Compt. F. U. Smith

GENERAL MANAGER OF ATHLETICS

Prof. H. C. Coffeen

FACULTY MEMBERS

Prof. Leigh	Dean Monin
Prof. Coffeen	Dean Raymond
F. U. Smith	Dr. Thomas

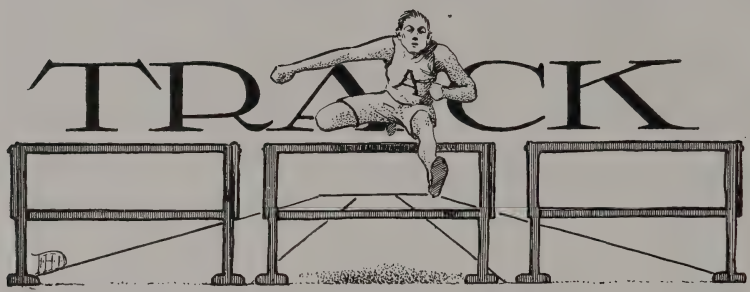
STUDENT MEMBERS

G. C. Bristol

W. A. Kellner

W. A. Merillat

A
H C Coffeen
W A Kellner
L C Monin
R M Raymond



TRACK TEAM

E. V. McKarahan . . . . . Captain
H. J. Rogers . . . . . Manager
T. F. Cornell . . . . . Coach

E. V. McKarahan, '09 .....100, 220 Yard Dash and Broad Jump
H. L. Cheney, '11 .....Discus, Shot, Hammer and High Jump
E. W. Hotchkin, '10 .....220 Yard Hurdles
J. G. Downton, '09 .....Shot Put and Hammer Throw
J. E. Fitch, '09 .....Discus Throw and Shot Put
O. L. Richards, '10 .....Pole Vault and High Jump
G. I. Stadeker, '09 .....High Jump and High Hurdles
H. C. Frisbie, '09 .....Half Mile
R. B. Mesny, '12 .....Discus Throw and High Hurdles
R. H. Overstreet, '12 .....Hammer Throw
Scott, '11 .....Pole Vault

"All the keys hang not at one man's bridle."

Review of the College Track Season

T. F. Cornell . . . . . Coach
E. V. McKarahan . . . . . Captain
H. J. Rogers . . . .Manager

The College track team made a good showing in the three triangular meets in which it participated last year. The spring training brought out a number of new men who showed up well and will form a firm foundation upon which to build a first-class track team for the season of 1910. Captain McKarahan and Cheney proved to be the chief point getters, Cheney getting the largest number of points for the season. The excellent work of Cheney was rewarded by his being elected captain of this year's track team, and under his captaincy it is expected that a much greater improvement will be shown in the team than in past years.

"The nearer the dawn, the darker the night."

McKARAHAN

SCORES

May 17. Armour, 38 1-3; Lake Forest, 26 1-3; Beloit, 69 1-3; at Armour.
May 22. Armour, 33; Monmouth, 25; Knox, 59; at Monmouth.
May 29. Armour, 33; Michigan Aggies, 35; Notre Dame, 67; at Lansing.

The meeting scheduled with Northwestern College was called off on account of rain.

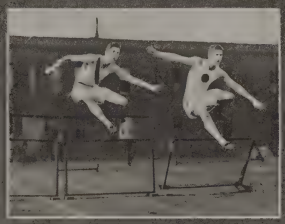
PLACES WON BY ARMOUR MEN IN THE VARIOUS MEETS.

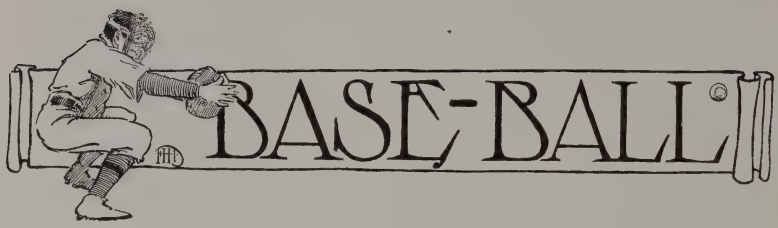
	Beloit-Lake Forest.			Know-Monmouth.			Notre Dame-M.A.C.		
Name.	1sts	2nds	3rds	1sts	2nds	3rds	1sts	2nds	3rds
Cheney	2	1	0	1	1	1	1	0	0
McKarahan	2	1	0	1	0	1	0	3	0
Stadeker	0	1	0	0	1	0	1	0	0
Richards	0	0	1	1	0	1	1	0	0
Scott	0	1	0	0	1	0	0	1	0
Bristol	0	0	1	0	1	0	1	0	0
Downton	1	0	0	0	0	0	0	0	0
Fitch	0	0	0	0	1	0	0	0	0
Overstreet	0	0	0	0	0	1	0	0	1
Frisbie	0	0	1	0	0	0	0	0	0
Hotchkin	0	0	0	0	0	0	0	0	1

In the Beloit-Lake Forest meet Cheney tied for one first and Bristol tied with two other men for third. In the M. A. C.-Notre Dame meet Cheney tied with Richards for one first.

"Who hastens to much often remains behind."

BELOIT - LAKE FOREST - ARMOUR
TRIANGULAR MEET





H. C. Smith, '09	*Captain*
W. K. Smart	*Coach*
W. E. Thomas, '10	*Manager*

THE TEAM

MEMBERS	CLASS	POSITION
H. C. Smith	1909	Catcher
McAuley	1909	First Base
Niestadt	1909	Second Base
Ahern	1909	Short Stop
DaSilva	1911	Field
Jens	1910	Field and First Base
Daly	1910	Field
Taylor	1911	Pitcher
Eliel	1910	Field
Dreffein	1912	Third Base
McMullen	1909	Field
Urson	1909	Pitcher

"Wear your learning like a watch in a private pocket; do not pull it out merely to show you have one."

Baseball

AGAIN as in previous years the baseball team was the most successful of all our athletic teams. However, the loss of Capt. Trinkaus of the 1908 team, whose pitching ability brought that team through the season with a fine record, was keenly felt in our first games. Out of a total of twenty games played we won 13 and lost 7, five of these being lost out of the first eight games played and the remaining two out of the remaining twelve games. This shows that we were slow in getting started, but had an excellent working and well balanced team after the efforts of Coach Smart's training were felt. We were defeated twice by only two teams, namely Chicago and St. Viateur's, both of whom had exceptionally strong teams.

The work of the team was excellent both in batting and in fielding, as is shown by the individual and also team averages. A batting average of .345 and a fielding average of .900 for the team for the whole season is playing real ball. We had six men batting over three hundred and five men fielding over nine hundred per cent.

The loss of Capt. Hal Smith, Benny McAuley, "Red" Ahern, Freddy Niestadt and "Mac" McMullen by graduation will be severely felt by the team next year; also the failure of Daly and Dreffein to return to college leaves only four "A" men as a nucleus for the 1910 team. However, with the first class material in the Freshman Class and co-operation of all baseball men in College we ought to have a banner team in 1910.

BATTING AND FIELDING PERCENTAGES

Names	AB.	H.	Pc.	P.O.	A.	E.	Pc.
Smith, Capt.	73	28	.383	128	24	6	.692
McAuley	65	25	.384	83	26	6	.950
Niestadt	74	18	.243	33	41	7	.913
Ahern	78	24	.307	30	38	16	.809
Da Silva	57	18	.302	14	0	4	.777
Jens	70	25	.358	100	4	7	.937
Daly	63	14	.222	19	0	4	.826
Taylor	27	5	.185	6	13	4	.826
Eliel	31	8	.258	15	1	1	.941
Dreffein	57	15	.263	20	23	14	.754
McMullen	18	7	.388	4	0	1	.800
Team average			.345				.900

"To know ones' ignorance is knowledge."

SCORES

April	1.	Thursday—Chicago, Marshall Field	1— 2
April	3.	Saturday—Chicago, Marshall Field	1— 6
April	7.	Wednesday—Wendell Phillips, Ogden Field	7— 1
April	10.	Saturday—Lake Forest, Ogden Field	6—10
April	15.	Thursday—De Paul, Ogden Field	12— 1
April	17.	Saturday—St. Viateur's, Kankakee	1— 4
April	21.	Wednesday—De Paul, De Paul	4— 2
April	23.	Friday—St. Viateur's, Ogden Field	4—11
April	26.	Monday—Lake Forest, Lake Forest	15— 3
May	4.	Tuesday—St. Ignatius, Ogden Field	11— 9
May	7.	Friday—Albion, Albion Field	0— 4
May	8.	Saturday—Hillsdale, Hillsdale	8— 5
May	11.	Tuesday—Hillsdale, Ogden Field	14— 0
May	13.	Thursday—Monmouth, Monmouth	4— 3
May	14.	Friday—Knox,	16— 2
May	18.	Tuesday—Beloit, Ogden Field	2— 3
May	21.	Friday—Albion, Ogden Field	17— 2
May	22.	Saturday—Beloit, Beloit	4— 2
May	24.	Monmouth, Ogden Field	10— 3
May	27.	Thursday—Knox, Ogden Field	7— 0

Games won, 13; games lost, 7; percentage, .650.

"Travel abroad, but dwell at home."

SENIOR BASEBALL TEAM

"HEADS OR TAILS"

Senior Faculty Game

When the gentle spring days come around our faculty dons the baseball rags of the Academy and endeavors to forget the class room gymnastics that their brains have been going through all winter. They stand around the diamond and wonder what to do with the sticks that are given to them until finally some one of them remembers that they used one like it last year. Then things start off fine. The ball comes over the plate—nearly, and the man at the bat strikes out with great force only to start the molecules of air to vibrating rapidly. After a great deal of practice they get so they can play fairly good ball. Then comes the Senior—Faculty Game.

In the month of June last year the game was played. In the first half of the game the Seniors walked all over the field with the faculty. The score was 17 to 4. In the fifth inning, by some strange means, the faculty got to moving faster, and before the game was over, had a score of 12 to the Senior's 22.

FACULTY BASEBALL TEAM

"A true word needs no oath."

BASKET-BALL

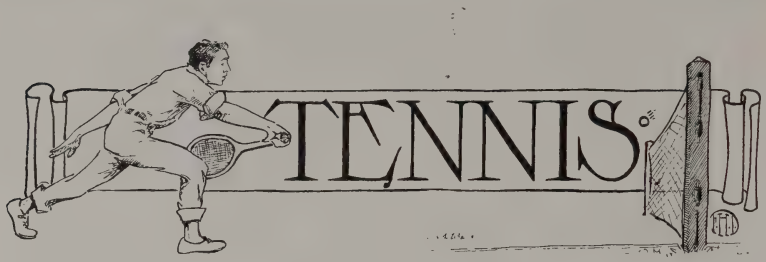
ROBERT ELIEL . . . . . *Captain*
A. M. NIEMZ . . . . . *Manager*
T. F. CORNELL . . . . . *Coach*

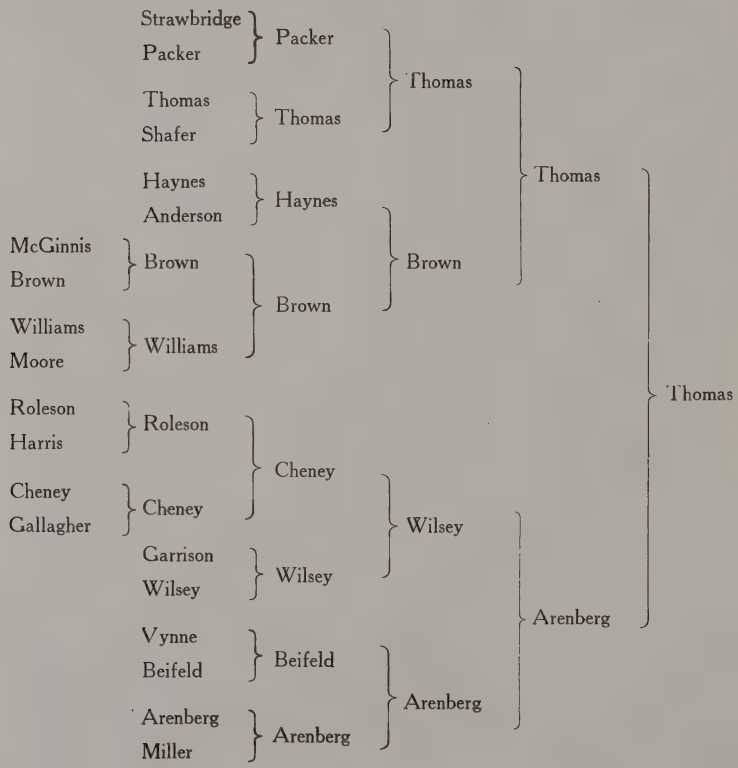
MEMBERS OF TEAM

NAME	CLASS	POSITION
Vynne	1910	Forward
Hamilton	1913	Forward
Cheney	1911	Center
Neufeld	1912	Guard
Simpson	1913	Guard
Drew	1913	Guard
Dierking	1912	Guard
Copenhaver	1913	Forward
Mabbs	1912	Guard

"Ask thy purse what thou shouldst buy."

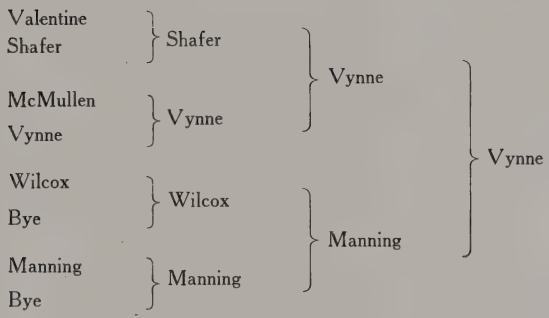
BASKETBALL TEAM


TENNIS

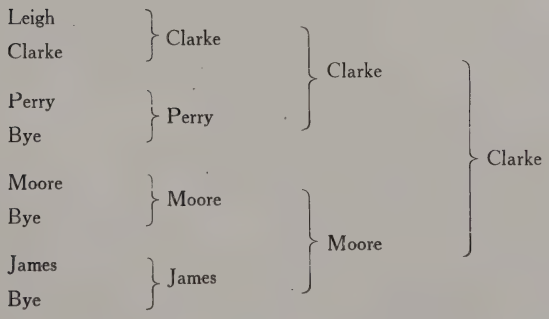

Strawbridge
Packer
Packer
Thomas
Shafer
Thomas
Haynes
Anderson
Haynes
McGinnis
Brown
Brown
Brown
Williams
Moore
Williams
Roleson
Harris
Roleson
Cheney
Gallagher
Cheney
Cheney
Garrison
Wilsey
Wilsey
Vynne
Beifeld
Beifeld
Arenberg
Miller
Arenberg
Thomas
Brown
Wilsey
Arenberg
Thomas
Thomas

Golf Tournament

FIRST FLIGHT



SECOND FLIGHT



TAFT DAY

SEPTEMBER 16th, 1909, "Bill" Taft, the newly elected president of the United States, came to Chicago. All of the school children in the city turned out to welcome him and Armour Institute of Technology was asked to represent the colleges of its rank, there being no others in session at that time.

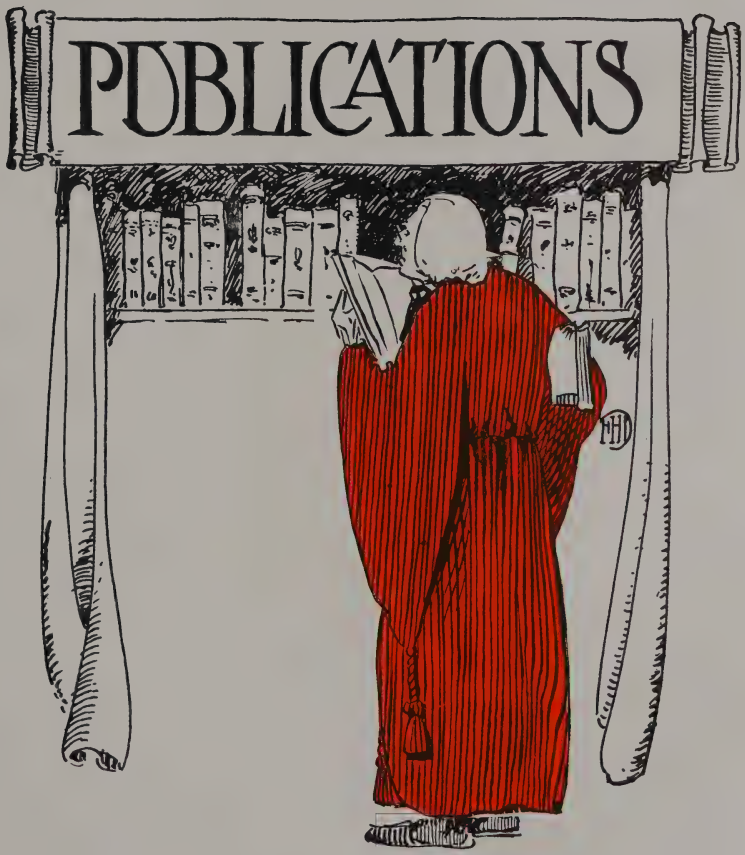
An assembly was held in the Mission on the morning of the 16th and after a short talk by Dr. Gunsaulus the students passed out to the street. Each man received a small American flag and a badge. Under the leadership of Prof. Monin, the students marched four abreast to Michigan Avenue, between Thirty-second and Thirty-third Streets, where they occupied one side of the street for the entire block.

As President Taft passed they gave three Arch-Mechs followed by nine Rahs and three "Tafts." Though we had to look rather quick to see him, President Taft, on account of the great volume of sound, certainly had no trouble in knowing who and where we were. Many of the men say the President again in the afternoon at the ball game as Dr. Gunsaulus had previously excused the classes for the rest of the day.

"Happy is the man who does all the good he talks of."

ON THE WAY
WAITING FOR TAFT
DEAN MONIN
DR. GUNSAULUS

A WINTER LANE


PUBLICATIONS

The Integral Board

EDITOR-IN-CHIEF
LeRoy David Kiley

BUSINESS MANAGER
Samuel Robert Todd

ASSOCIATE EDITOR
Gerry D. Pettibone

ASSISTANT EDITORS
Philip Francis Miller Garry Bell James

ASSISTANT BUSINESS MANAGERS
Walter White Drew Elmer Lucius Canman

REPRESENTATIVES

ATELIER
Howard L. Cheney Harold A. Merriman

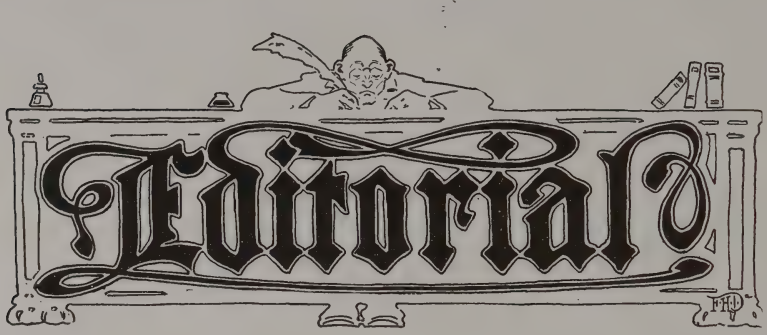
SENIOR
Monroe A. Smith Eugene D. MacEwing

SOPHOMORE
Edwin C. King R. Neufeld

FRESHMAN
R. E. Agee

ACADEMY
A. W. Ames C. A. Duntley

INTEGRAL BOARD
S.R. Todd
L.D. Kiley
G. Pettibone
W. Draw
D. Miller
E. L. Canman
G. B. James



The Integral was first issued by the class of '98 with W. D. Matthews as the first Editor-in-Chief.

To E. S. Ross, a member of '98, belongs the honor of giving to our annual its name, The Integral. Inasmuch as The Integral is a complete record of the events of the college year, there could be no more fitting name and symbol, so well expressing the character of the book and the institution of which it is a part.

This year no Academy students were registered at Armour. That such action by the school was indeed wise is not to be doubted. The intermingling of the college and academy students in various affairs has always been undesirable. The atmosphere of the college, the surroundings of the school, and the general accomodations have not offered to the younger men, the right sort of influence for growing minds and undeveloped powers.

The immediate effect on the college will not be felt at present, but it is bound to raise the standards of Armour as one of American's leading colleges and gradually effect an increase in registration.

Is loyalty to our Alma Mater, something we bring with us, it is something we learn, is it something we acquire, or is it to be bought as one of the extras in our registration fee. Look about you. There are some fellows fairly overflowing with enthusiasm, they are inspired with a spirit of "do it." Their names are numbered in all school affairs. There are others, God help them; they are cynical, indifferent, yes, and even pull the other way. Which are you?

Loyalty is no more than the cultivation of a phase of love. Figure it out. The college man is a young man. His life is before him; not behind him. You can not be taught everything; learn something, for yourself, by yourself.

"Defeat is a tonic to a brave man."

Four years at college is a short span as we count time now, and you have your opportunity. Make friends, lend a helping hand and tear yourself away from the everlasting grind, and in the future you will look back and be thankful that t'was in this or that affair that you broadened your perceptions a little by enjoying the things that have given the finer polish to your character.

After all is it worth it? Days and nights of work and worry. To you, merely one of the events of the college year to us, the all important event of our Junior year. But we trust that our efforts have not been in vain, that you will be lenient, for we have served you in a spirit of love.

The result, we believe, will be in advance of previous Integrals, we have tried to make it so, and earnestly hope that the issues to come may profit by our errors, to grow and approach perfection. To you, a record, a pastime, a souvenir, we can only hope, perhaps more, to us a work, an achievement, an education in itself, The Integral.

NEUFELDT CHENEY AGEE MERRIMAN
CANMAN AMES MACEWING SMITH
MILLER TODD KILEY PETTIBONE

"Do not fly until your wings are feathered."

Acknowledgements

To the following friends of the Board, in particular, and to all who have helped in any way to get out this book, we wish to convey our humble thanks for their effort to make it a success.

Dr. F. W. Gunsaulus	Mr. H. J. Rogers
Dean H. M. Raymond	Mr. R. A. Walther
Dean L. C. Monin	Miss Marion Quackenbos
Mr. F. U. Smith	Mr. T. G. Cleaver
Mrs. Julia Beveridge	Mr. Costello
Prof. A. E. Phillips	Mr. Eustace Vynne
Prof. D. P. Morton	Mr. J. Ellsworth Gross

The Art work was done by Missrs. John Morton, F. H. Dillon, and R. F. Babcock. The Photographs were taken by Walinger, and the book was printed, and bound, and the engravings made, by the Hammersmith Engraving Co. of Milwaukee, Wisconsin.

"Have a house of thine own, and thou mayest borrow another's."

THE ARMOUR ENGINEER

The Armour Engineer is the semi-annual publication of the students. It is intended to be a record of the progress attained at Armour and of the things her graduates are accomplishing. It is also a medium through which the students may learn what these who have gone before are learning. The reception accorded it by the students and the alumni on both of its appearances last year and its one appearance this year certainly looks well for its future. It is a paper of high standard of excellence and is fully appreciated by all its readers. The editors will be glad to receive articles and information from the alumni concerning their fields of work that will be of interest to the readers of the paper.

"There is no friend so faithful as a good book."

The Fulcrum is the monthly magazine of the college, and is published under the management of a Senior Editor-in-chief, a Junior Managing Editor, and a Business Manager. The rest of the Staff is selected from all the classes. The paper contains articles by different members of the faculty and student body; athletic and school notes; besides cartoons, etc.

The whole affords the student amusement and recreation as well as a means of keeping in touch with school affairs.

"Hope for the best; get ready for the worst."

THE FULCRUM STAFF

WEART ROLLER PEARCE ANDERSON NIEMZ SPINDLER SMITH MERRIMAN
EVANS BOLTE VYNNE MC CUNE

The summer courses offered by Armour Institute of Technology are designed to meet the needs of teachers and special students who desire to extend their knowledge of scientific and technical subjects; or undergraduates desirous of shortening their regular courses; of new students deficient in certain studies required for admission; and of those who are unable to attend the school year.

Students may enter the Institute in the summer session, instead of waiting until the autumn term. This is particular advisable for those students who are conditioned in any of the studies required for admission. It not only allows them to make up their deficiencies, but gives them an opportunity to become familiar with the methods of instruction.

"A good man dies when a boy goes wrong."

THE ACADEMY

Armour Scientific Academy

CLASS OF 1910

COLORS

Purple and Gold

YELL

Rah "T" Rah "E" Rah "N"
We're the last class "TEN"

OFFICERS

J. Aberley	*President*
C. J. Wilkins	*Vice-President*
A. W. Ames	*Secretary and Treasurer*

INTEGRAL REPRESENTATIVES

A. W. Ames C. A. Duntley

The Armour Scientific Academy Class of 1910 is the last class to graduate from the Academy, owing to the fact that this branch of the school is to be discontinued. Through the efforts of the Senior class, the good reputation of the Academy in athletics has been upheld. Entered as Sub-Freshmen in the all round athletics of the college, they made an enviable record for themselves. Throughout their whole Academic course they have shown remarkable instances of their sterling qualities, and they will be welcomed into the college next year with the greatest pride as part of the Freshman Class.

"Look in thy heart and write."

ARMOUR SCIENTIFIC ACADEMY—SENIOR CLASS

Academy Baseball

CAPTAIN
L. A. Merillat

MANAGER
W. L. Lobdell

COACH
C. W. Leigh

—

THE TEAM

R. L. Langford	Pitcher and Shortstop
L. A. Merillat	Pitcher and Shortstop
E. H. Williams	Outfielder
Kosters	Outfielder
R. E. Burr	Outfielder
H. F. Isreal	Second Base
M. La Rue	Second Base
L. Harvey	Third Base
J. C. Wares	First Base
C. J. Wilkins	Catcher
F. Cooban	Catcher

ACADEMY BASEBALL SCHEDULE

Opponents	Date	Score	Won by
Lake View	April 3, '09	3 to 1	A. S. A.
La Grange	April 6, '09	5 to 2	A. S. A.
Grand Prairie Sem.	April 17, '09	5 to 7	Grand Prairie
Northwestern Academy	April 24, '09	2 to 0	A. S. A.
Oak Park H. S.	April 26, '09	1 to 4	Oak Park
Morgan Park Academy	May 5, '09	4 to 0	A. S. A.
Northwestern Academy	May 8, '09	10 to 5	A. S. A.
Grand Prairie Sem.	May 15, '09	11 to 5	A. S. A.
Austin H. S.	May 17, '09	8 to 4	A. S. A.
Morgan Park Academy	May 19, '09	4 to 7	Morgan Park
Crane High School	May 28, '09	7 to 8	Crane

"Present neglect makes future regret."

Academy Track

SPRING 1909

The Academy Track season was opened by a preliminary try-out meet with Oak Park High School and the team showed exceedingly good form for early spring. In the latter part of the season another meet was held with Oak Park High School who won the meet by a narrow margin. The last meet of the season was held on Ogden field, May 22nd, and here the Academy won the inter-academic championship.

THE TEAM

T. F. Cornell . . . Coach
M. Anderson . . . *Manager*

S. R. Peoples . . . High Jump and Pole Vault
W. I. Waldron . . . . . 880 Yard Run, Mile, Discus and Relay
R. Sturtevant . . . . . Dashes, 440, and Relay
A. W. Ames . . . . . Mile
A. F. Holden . . . . . 880 Yard and Mile
H. Bohn . . . . . Dashes and Relay
H. Peiser . . . . . Dashes and Relay
J. Boylston . . . . . High Jump and Pole Vault
M. Anderson . . . . . Dashes and Broad Jump
Larson . . . . . Broad Jump

"A word before is worth two behind."

Academy Basketball

CAPTAIN
J. Boylston

MANAGER
F. Sturtevant

COACH
T. F. Cornell

THE TEAM

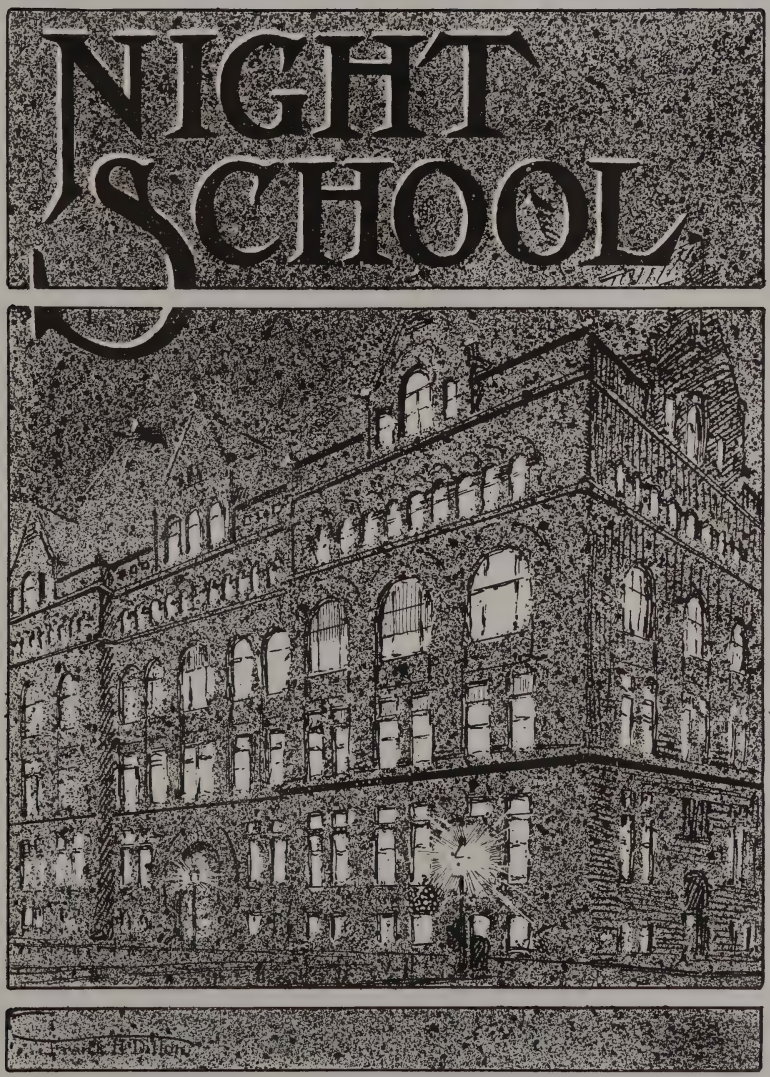
J. Boylston	Forward
C. J. Wilkins	Forward
J. A. Lyons	Center
Isreal	Guard
E. Brewer	Guard
S. R. Peoples	Forward
C. Dean	Guard
F. Opper	Guard
F. Holden	Guard
W. I. Waldron	Center
E. Williams	Guard

THE GAMES

Nov. 18, '09	Armour Academy	8	Calumet H. S.		17
Nov. 18, '09	" "	47	Austin H. S.		18
Nov. 30, '09	" "	48	Englewood H. S.		13
Dec. 3, '09	" "	16	Morgan Park A.		17
Dec. 7, '09	" "	35	Joliet H. S.		32
Dec. 14, '09	" "	72	Lake View H. S.		18
Jan. 12, '10	" "	16	Morgan Park A.		13
Jan. 22, '10	" "	24	Evanston A.		14
Jan. 26, '10	" "	14	Morgan Park		17
Jan. 28, '10	" "	8	Evanston A.		19
Feb. 4, '10	" "	34	U. of C. Freshmen		26
Feb. 11, '10	" "	16	Joliet H. S.		33
			U. of C. Freshmen		30
Feb. 18, '10	" "	25	Oak Park H. S.		27

"As good do nothing as to no purpose."

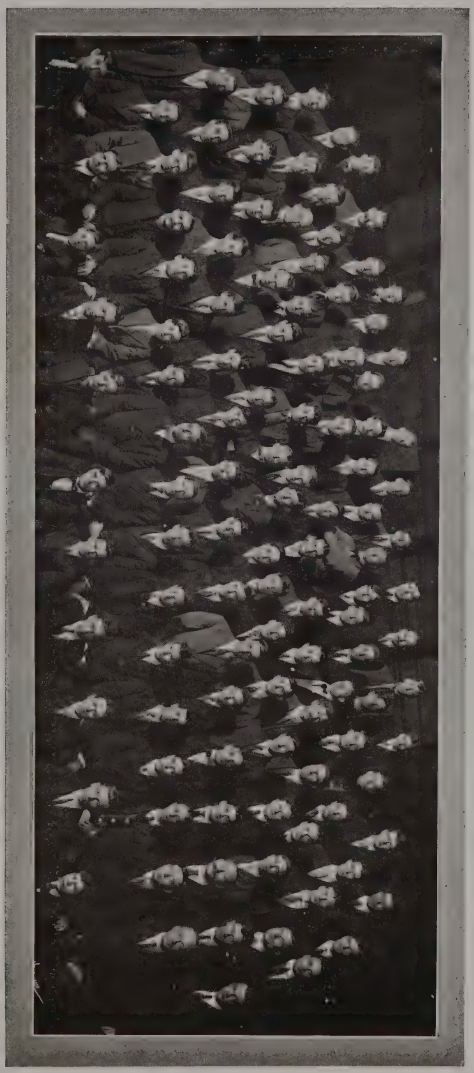
ACADEMY BASKETBALL TEAM


NIGHT
SCHOOL

Evening Courses

The evening courses of Armour Institute of Technology offer excellent opportunities to those wishing to take special work in engineering, and to those wishing to make up any part of the regular curriculum. Large classes are in session on Monday, Tuesday Thursday, and Friday evenings, from seven thirty until nine thirty both in the class rooms and laboratories. The attendance is very large, and the students are of a high mental calibre. Most of the students are young men working through the day although there are quite a number of scholars from the day school who are registered for special work.

The evening school session is divided into three terms of ten weeks each. The staff of instructors is practically the same as that of the day school. Armour Institute is probably the only college offering such a thorough course in the different branches of engineering, in conjunction with a modern equipment to those desirous of attending school after their daily work.



RED HOTS
FHD

"Power Plant Note."

Inspect your furnace and chimney often. If you notice that the smoke pipe is too close to a frame partition and is slowly charring the boards, send your best furniture to a storage-house and take out plenty of fire insurance.

Coffeen to class: "Who has read the lesson since the last time?"

Malekow: (in Chemistry) "Is HCl poisonous?"
Prof. Freud: "No. If it was I would feed you a quart of it."

Hatman in Law of Contracts: "No class to-day, fellows. We haven't got a quorum."

GETTING IN TO
WORK ON A HOLIDAY.

Why are successful men always bald?
Because they come out on top.

"Never howl till you are hit."

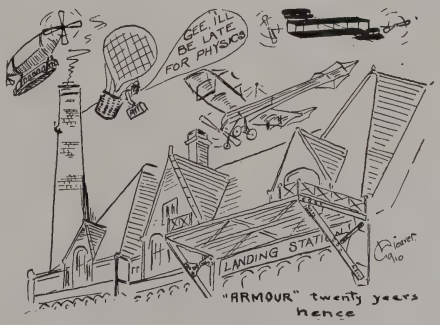
Epitaph to Lucille.

Here lie the bones of dear Lucille,
Who one day slipped on a church bell peal.
How do I know—don't be so bold—
How do you think? Why, the church bell tolled.

Judge: "You are a freeholder?"
Talesman: "Yes, sir, I am."
Judge: "Married or single?"
Talesman: "Married three years last June."
Judge: "Have you formed or expressed any opinion?"
Talesman: "Not for three years."

The teacher had been teaching the class the different kinds of cloth. "Now, Johnny," he asked, "what is your coat made of?"

"Oh, my father's pants," responded Johnny promptly.—Ex.



Was a Fool Question.

Mother—"You were a long time in the conservatory with Mr. Willing last night, my child. What was going on?"

Daughter—"Did you ever sit in the conservatory with papa before you married him?"

Mother—"I suppose I did."

Daughter—"Well, mamma, it's the same old world."

"Fools go in crowds.

HELPFUL HINTS

You cannot imagine how much can be done with a small can of white enamel to beautify the home. Take a mahogany chair—the one your husband is fondest of—and while he is downtown at business, work a joyous little surprise for him by painting the chair white all over. You will get a good deal of the paint on your hands and face, but you may easily remove the traces by dusting your skin plentifully with any pure face powder. If you get it in your hair it will be all right if your hair is turning gray anyway. Be sure to tell your husband to wear his white duck trousers when he sits in the chair, as the enamel will not be dry when he comes home in the evening. His remarks when he sees the chair will well repay you for your labor.

POURING OVER HIS BOOKS

"But I don't see that you need be so heart broken because Mabelle Flyaway has jilted you."

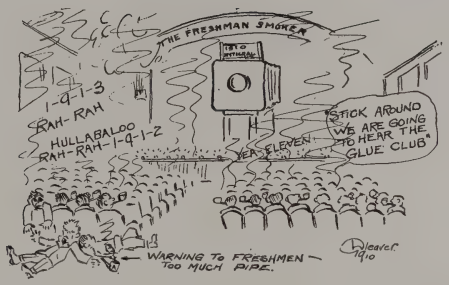
"It isn't the jilting I mind, but she returned the ring in a parcel marked 'Glass, Handle With Care!'"

"How did Blinkin become insane?"

"He slept three months under a crazy quilt."

REGISTRATION DAY

INTEGRAL SIGNS



Mr. Dean, in checking up apparatus in the Organic Laboratory examines a test tube holder very carefully.

Prof. Freud: (looking on) "Say Dean, that test tube holder has holes in it."

Slumber: "I see a young lady wot's engaged to be married had a bath yesterday."
Hotfoot: "Is dat a fact?"
Slumber: "Yep. Dis newspaper says her friends gave her a shower."

A PART OF THE FACULTY

"To make a book is no less a trade than to make a clock."

IN FRESHMAN CHEMISTRY

Galbraith is asleep in class. Prof. Freud asks him a question.
Galbraith: (waking up) "I don't know."
Prof. Freud: "What was the question?"
Galbraith: "I coudn't hear, the train going by made too much noise."

Then "Beat It."

"I don't understand how one can learn boxing by correspondence, as this advertisement states. How can any one get practice?"

"Oh, you get your practice licking stamps."

What country is opposite us on the globe?
I don't know.
If I were to bore through the earth and went in the end, where would I come out?
Out of the hole.

A man driving a nail exercises a force of 100 pounds to the square inch when he hits the head of the nail and a 1,000,000 pounds when he hits his thumb.

"Praise a wife, but remain a bachelor."

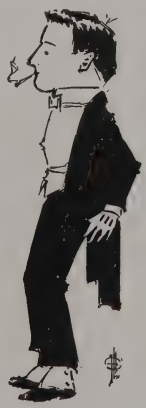
FEELINGS

How are you feeling?
"Tacky," said the carpet.
"Rotten," said the apple.
"Punk," said the fireworks.
"Out o' sight," said the invisible hairpin.
"Bully," said the boarding-house steak.
"Tough," said the ditto chicken.
"Fine," said the judge.
"Elegant," said the dude.
"Grate," said the anthracite.
"Tip-top," said the church belfry.
"In great shape," said the ballet girl.
"Never better," said the antigambling crusader.
"Fit," said the tailor.
"Like a fighting cock," said the man who had run away from a hen party at his house.
"First rate," said the freight magnate.
Swimmingly," said the fish.
"Good," said the preacher.
"Well," said the artesian driller.
"Rugged," said the mountain.
"With my fingers," said the smart Aleck.
One thing anyway, we are not slipping a single joke over Doc. Campbell.
Prof: "Steel will stand 5,000 pounds pressure per cubic inch."
Student: "How thick must it be?"

Heard at the Junior Informal.

She: "Who are those fellows in dress suits?"

He: "Oh, that's part of the Glee Club."



"Be true to your word, your work, and your friend."

Father: "Well sir, what can I do for you?"

Adams: "Why-er, I called, sir, to see if you would give assent to my marriage to your daughter."

Father: "Not a cent, sir, not a cent. Good day."

When the bottom crust of a pie sticks to the pan the trouble may be relieved by pouring an ounce of nitroglycerin slowly beneath the crust, having first pried it up a trifle on one side. Then place the pie in the pan in the middle of a vacant lot and chuck stones at it until you hit it. This will instantly remove the crust.

Sign seen in the lunch room in the summer.

Cakes, 1 cent each, 4 for 5 cents; Pickled eggs, 3 cents each, 2 for 7 cents.

CLEAR SOUP:—Find two pints of water and wash them thoroughly on both sides, and pour into dish or something. Then catch an onion, kill it, drop it carefully in the soup and stir about the room until tired.

"Care, and fine stables, make the good horse."

She struggled furiously—his lips were almost on a level with her own. "Sweetheart, I am going to kiss you," he panted.

"Never, no. It's not safe."

"I demand a reason." The man was desperate. The girl's eyes took on a steely glitter. "Let me go," she cried, hoarsly. "I will tell you all."

The man's face became a mask. "Go on," he said simply.

"I am a stranger, I can bear it now."

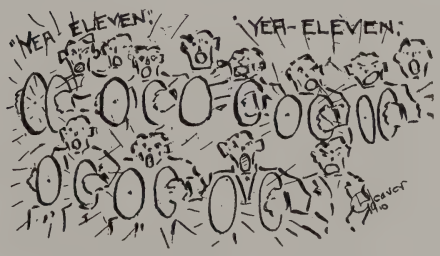
"No man shall kiss me,"—her voice was cool in its frigidity.

"Who doesn't chew Listerated Pepsin Gum."

His great frame shook like a baby, as the horrible truth flashed upon him. Never could he chew gum—his teeth were false.

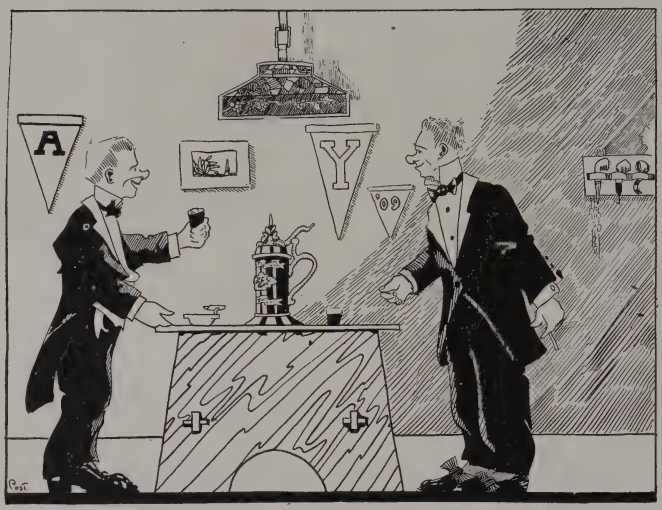
Daughter: (to father who is reading) "O, look at the big bug on the ceiling."

Pa: (absent mindedly) "Well, step on it and don't bother me."



Father says that the ruination of young men is wine, women, and song, so I guess I'll give up the singin'.

"The guilty catch themselves."



"Yes, I have "senior" pictures. You must have got 'em by the Gross. Sieck brother's own make.

It was raining out of doors,
It was raining, you bet!
The train pulled in the station,
The bell was ringing wet.

"I'm introducing a brand new invention—a combined talking machine, carpet sweeper and letter opener," said the agent, stepping briskly into an office.

"Got one already," answered the proprietor. "I'm married."

"The true university of these days is a collection of books."

SIECK BROTHERS' OWN MAKE.

Jimmie giggled when the teacher read the story of the Roman who swam across the Tiber three times before breakfast.

"You do not doubt a trained swimmer could do that, do you, James?"

"No, sir," answered Jimmie; "but I wondered why he didn't make it four and get back to the side his clothes were on."

Scene I. at the Radic Banquet.

We were entertained on February 8th by the "Royal Prize Welch Choir."

A BRIGHT BOY

"Now, Tommie," said the teacher, "you give me an example of a coincidence."

"Why, er," said Tommy, with some hesitation—"why, er, why—me fadder and mudder was both married on the same day."

The Judge: "What's your name?"
The Swede: "Jan Oleson."
Judge: "Married?"
Oleson: "Ya, I ban married."
Judge: "Who'd you marry?"
Oleson: "Oh! I marry a woman."
Judge: "Well, you fool, did you ever know any one that didn't marry a woman?"
Oleson: "Ja, my seester; she marry a man."

In the "grafting" room.

"It's the little things in life that tell," said the girl as she pulled her young brother out from under the sofa.

Definitions.

Student—Derivation and meaning uncertain; possibly from the same root as the word study.

Armory (archaic)—Believed to be a sort of hut where students pound their feet with gun butts and run around a short circle in short pants.

Professor—A highly domesticated mammal who makes a living (sometimes) by writing books.

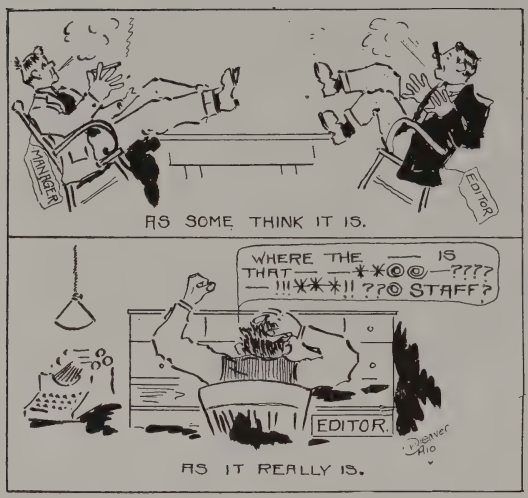
Junior week—A series of dances, interspersed with lobster salad but no sleep.

Recorder—A nice man, but with an unpleasant duty to perform.

Campus—A collection of buildings surrounded by telegraph poles.

Graduate manager—The graduate who can throw cold water farther than any other living graduate.

Registrar—See recorder. After that, see your dean.



It was well trained no doubt
For every time Tobias came
The little lamp went out.

Mother: "Why, Bobby, what do you mean by making baby eat that yeast cake?"
Bobby: "Boo-hoo. He swallowed my fifty-cent piece and I'm trying to raise the dough."

IN SEVERAL STATES

"O come with Me., my love," he said.
"We'll seek some quiet, shady Del.
Where I Kan. kiss a dainty Miss.
"Ore. tell again of Cupid's spell."

"Tenn. times I love you, and I Wis.
You'd Ark. to me N. C. my heart
A-beating inwarding for you.
I swear from you Ill. never part."

"Oh, La.," said she, "I'll Nev. Va. go.
I'll call Pa. Better let me be.
Besides, you only want my Mon.;
So don't get Ga. No Conn., D. C.?"

Scared

"Don't worry about John, Mother."

"Well, Eph, I don't suppose I should; but when one letter says his condition is so good and the next says that he'll have to get rid of his condition before the faculty will let him play football I'm awful afraid that he'll make himself sick and weak."

After Scott

Breathes there a stude with soul so dead
Who never to himself hath said,
As clock chimed out 7 a. m.,
"I do not care a D. A. M."

We are informed by a Pennsylvania paper that Mrs. Lemuel Prutt of somewhere in that state same home and found that her daughter had eloped, and that Mrs. Prutt fainted upon her discovery. We trust that her discovery was not damaged to any great extent.

"ECONOMICS I."

In answering the following questions show how economy in space will enhance the value and price of your work.

1. If Mary grows oatmeal on a certain site of land, C, and Susan grows shredded wheat on a better site, D, does it follow that the gain grown on the better site, D, will be a D— sight better than that grown on C? If not, why or why not?

2. Consider the case of rent in a feminine tunic. Compute carefully what the demand among the masculine element will be to supply the owner with thread and needle. Carry the decimal out five places.

3 (a). Compare the wages of sin and the wages of a chauffeur in Walker, in Mill, in Paris.

(b) What is the faculty doing to counteract the law of diminishing returns?

THE POSTMAN

The postman is a funny man
  Who never does things right;
The things he brings on time we wish
  Had never met our sight.

The bills and such and postal cards
  That brings the college seal
Are always brought in perfect time
  With sadly misplaced zeal.

But checks from home and notes from "Her"
  Don't come in such a drive,
And though we're sure that they were sent
  They sometimes don't arrive.

NOT CATCHING

"My son is taking algebra under you this term, is he not?" remarked the fond father to the new teacher.

"Well," answered the pedagogue, "your son has been 'exposed' to algebra, but I doubt if he will take it."

He sucked his thumbs in babyhood,
  Old ladies kissed him when he smiled;
His gleeful parents gave the good,
  Mild name of Eustace to the child.

Bjones: "Why the grouch?"
Besum: "My wife called me a fool."
Bjones: "Cheer up. It may not be true."
Besum: "But it is. She proved it. Went and dug up a bunch of my old love-letters and read 'em to me!"

MODERN PERILS OF THE DEEP

"We are lost!" the Captain shouted
  As he took the elevator,
For a storm had swept the vessel
  All the way to the Equator.

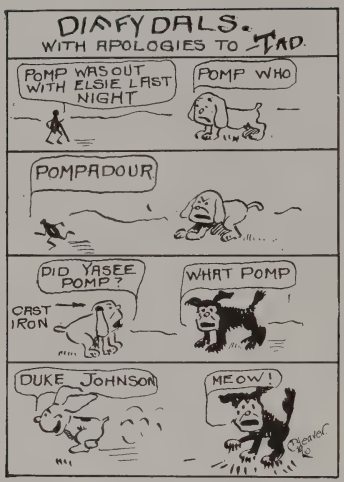
"Now the telephone is busted,
  And the steam heat's swept away,
While the patent pianola
  Only funeral hymns will play.

"Swimming tank is leaking badly,
  And the ice plant's put to soak—
Cannot get our Wall Street prices,
  For the wireless mast is broke.

"Manicure and masseur missing—
  Open plumbing can't be found,
Printing presses are all broken,
  And the incubator's drowned!

"Ship is just as good as ever,
  Engines sound and working well—
But we're shy on several features
  That become a good hotel.

"So we're lost," the Captain shouted.
  "It's a cinch we've got to drown."
Elevator boy then murmured
  Opportunely, "Going down!"



An Hibernian maid, fair and fat,
Knew emphatically where she was at,
Said she: "Bring your beaux,
But, sure, fer me own, I'll stand Pat."

Old Lady—"What is that odor?"
Farmer—"Fertilizer."
Old Lady—"For land's sake!"
Farmer—"Yes, ma'am."

HELPFUL HINTS

Lucretia B. writes: "Can you suggest some way to use the scraps of cold corned beef, the bones of turkey, and left-overs from one or two meals?"

beer, the bones of turkey, and left-overs from one or two meals?"

from one or two meals, as Lucretia indicates that she is, there would be more happy households.

For instance, after a turkey has been on the table three or four times, a neat and novel way of utilizing the wreckage is to take it in a large flat pan, walk to the back fence and throw it into the alley.

The scraps of cold corned beef may be pressed into balls, set outside until they dry hard, then used to throw at stray dogs.

A soup bone that has but a few shreds of meat clinging to it can be converted into a neat centerpiece for the garbage can by garnishing it with a few strands of cold macaroni and dusting with fragments of pie crust.

"When I get to heaven," said a woman, "I'm going to ask Shakespeare if he wrote those plays."

"Maybe he won't be there," said her husband.

"Then you can ask him," she replied.

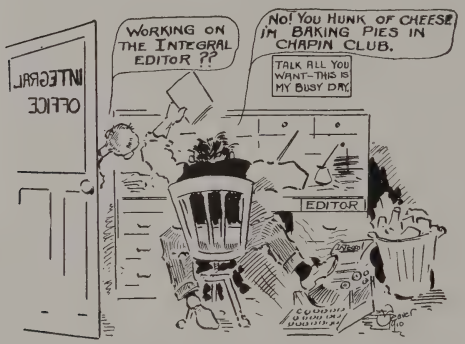
'09
ADVERTISEMENTS
'10

"See here, sir," cried her father, "Didn't I tell you never to enter my house again."

No, sir, you didn't," replied Oehne. You said, ,'not to cross your threshold, so I climbed in the window."

Teacher: "Poetry with two feet is called dimeter—"
Astry: "What, when it has but one?"
Voice: "A cripple."

ICE CREAM:—Dry a piece of ice in the sun, stir in some cold cream; fan it until it freezes, then frost with vaseline. To be eaten with a sponge.



ALTERNATING SPARKS

Large checks are always fashionable for lawyer's suits.
When a man is rattled it is evident he is in a box.

Selfishness is the devil's narrow gauge road.

The smooth man's success lies in his never getting ruffled.

A widow is one who has buried her husband; a grass widow is one who has simply mislaid him.

The Continental National Bank

OF CHICAGO

Capital, ... $9,000,000
Surplus and Profits, 5,000,000

OFFICERS

GEO. M. REYNOLDS, President
EDWIN A. POTTER, Vice-President
ALEX. ROBERTSON, Vice-President
JAMES R. CHAPMAN, Vice-President
HERMAN WALDECK, Vice-President
WM. G. SCHROEDER, Cashier
CHARLES S. CASTLE, Acting Cashier
F. H. ELMORE, Ass't Cashier
WILBER HATTERY, Ass't Cashier
J. R. WASHBURN, Ass't Cashier
WILSON W. LAMPERT, Ass't Cashier
FRANK L. SHEPARD, Auditor

DIRECTORS

J. Ogden Armour
John C. Black
Henry Botsford
E. J. Buffington
Albert J. Earling
B. A. Eckhart
E. H. Gary
John F. Harris
William J. Henley
Frank Hibbard
Edward Hines

DIRECTORS

W. H. McDoel
Samuel McRoberts
Joy Morton
Alfred H. Mulliken
T. P. Phillips
E. A. Potter
George M. Reynolds
E. P. Ripley
Alex. Robertson
Wm. C. Seipp
Chas. H. Thorne
F. E. Meyerhaeuser

The American Trust and Savings Bank

Capital, $3,000,000

BOND, TRUST AND SAVINGS DEPARTMENTS

Interest Bearing Certificates of Deposit

The Capital Stock of this Bank is owned by and held in trust for the stockholders of The Continental National Bank of Chicago

GEOMETRICAL THEOREM

In the law, meum and tuum are second only in importance to sue 'em.

Bride: "Here is a telegram from papa."
Groom: (eagerly) "What does he say?"
Bride: (reads) "Do not return and all will be forgiven."

Stationer: "How did that black ink suit?"
Engrosser: "Oh, it did the business up brown."

Prof.: "Why is it warmer here than at the time of the ice age?"
Carlson: "There are more steam-heated flats now than then."

HOW SOME OF OUR FELLOWS EARN THEIR TUITION.

SOME DEFINITIONS OF CHAPIN CLUB

By Coffen and Nachman: "That's where I found 'em."
By the Integral: "A d—— nuisance."
Freshman: "Ooooo, a swell place."

Proposition: You have a girl; you love her.
To Prove: That she loves you.
Proof: All the world loves a lover, she is all the world to you.
Therefore she loves you.

ELECTRICAL SUPPLIES

CENTRAL WESTERN AGENTS

for

Okonite Wires and Cables
Okonite Tape Manson Tape
Banner Brand Weather-proof Wire
D. & W. Enclosed Fuses and Cut-outs
Candee Patented Pot Heads
Deltabeston Magnet Wire
Columbia Lamps
Opalux Glassware

OKONITE IT NEVER DISAPPOINTS

OKONITE IT NEVER DISAPPOINTS

Central Electric Company

264-266-268-270 Fifth Avenue Chicago, Illinois

Be sure you are correctly dressed

It will make you feel brighter and better and convey the impression that your brains are paying dividends

The World Likes Prosperous People

Two Stores
131 La Salle Street
44 Jackson Boulevard

Jerrems
Tailor for Young Men

INTERESTING SCIENTIFIC NOTES

The chances of holding a pat flush are I in 25,377. On the twenty-five thousand three hundred and seventy-seventh time nobody else stays in the game.

A dog wags its tail forty-eight times to the minute when it is glad. By keeping cool and counting the wags you may know whether or not to approach a strange dog.

There are stars so distant that it requires 50,000 years for their light to reach the earth. Also the light is so dim that it would not be useful for illumination even if we waited 50,000 years.

THE LIMIT

"Carson's the absent-minded chap I ever saw."

"What's he been doing now?"

"This morning he thought he'd left his watch at home, and then proceeded to take it out of his pocket to see if he had time to go home and get it."

The Only Bank on State Street

CHICAGO SAVINGS BANK AND TRUST COMPANY

State and Madison Streets

CAPITAL, $500,000.00

DIRECTORS

E. P. BAILEY, National Malleable Castings Co.
C. B. BORLAND, Real Estate
H. K. BROOKS, Amer Exp. Co.
WM. G. HIBBARD, JR., Hibbard, Spencer, Bartlett & Co.
HENRY H. HILTON, Ginn & Co.
J. E. JENKINS, Jenkins, Kreer & Co.
CLAYTON MARK, National Malleable Casting Co.
RUDOLPH MATZ, Matz, Fisher & Boyden, Attorneys
WM. E. O'NEILL, Attorney
JOS. E. OTIS, Western Trust and Savings Bank
RALPH C. OTIS, Otis Estate
C. D. PEACOCK, JR., C. D. Peacock, Inc.
CHAS. H. REQUA, ReQua Bros.
DANIEL B. SCULLY, D. B. Scully Syrup Co.
LUCIUS TETER, President
GEO. H. WEBSTER, Retired
WALTER H. WILSON, Comptroller, City of Chicago

OFFICERS

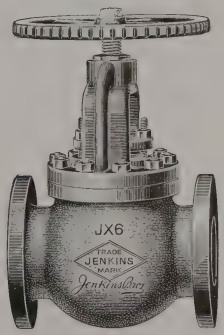
LUCIUS TETER, President
E. P. BAILEY, Vice-President
CHAS. H. REQUA, Vice-President
WM. RUPP, JR. Cashier
WM. M. RICHARDS, Ass't Cashier
LEVERETT THOMPSON, Secretary

DEPARTMENTS

CHECKING
SAVINGS
INVESTMENT BONDS
TRUST
REAL ESTATE LOANS
DRAFTS AND FOREIGN EXCHANGE
SAFETY DEPOSIT VAULTS

CHICAGO SAVINGS BANK BUILDING
State and Madison Streets, CHICAGO

JENKINS BROS. VALVES



are made in Brass or Iron in a variety of types and sizes to meet every condition of service. *Standard Pattern,* for ordinary pressures. *Extra Heavy Pattern,* for high pressures. Made of new steam metal; high grade workmanship; interchangeable parts.

ALL GENUINE BEAR TRADE MARK

Illustrated catalog on application

JENKINS BROS.

NEW YORK BOSTON PHILADELPHIA CHICAGO

Institute Calendar

1909

June 10	Thursday . . .	Entrance Examinations
June 21	Monday . . .	Summer Courses Begin .
July 30	Friday	Summer Courses End
September 2	Thursday . . .	Entrance Examinations
September 7	Tuesday . . .	First Semester of the College Year Begins (1909-1910) Registration Day

1910

October 4	Monday . . .	Evening Classes (First Term) Begin
November 25-26	Thursday and Friday	Thanksgiving Holidays
December 10	Friday	Evening Classes End
Dec. 20—Jan. 1		Midwinter Recess
January 3	Monday . . .	Evening Classes (Second Semester)
	Saturday . . .	Begin
January 22		First Semester Ends
January 24	Monday . . .	Second Semester Begins—Regis-
	Saturday . . .	tration Day
February 12		Lincoln's Birthday—A Holiday
February 22	Tuesday . . .	Washington's Birthday—A Holiday
March 11	Friday	Evening Classes End
March 14	Monday . . .	Evening Classes Begin
May 22	Saturday . . .	Baccalaureate Sermon
May 26	Thursday . . .	Commencement Exercises
May 28	Saturday . . .	Second Semester Ends

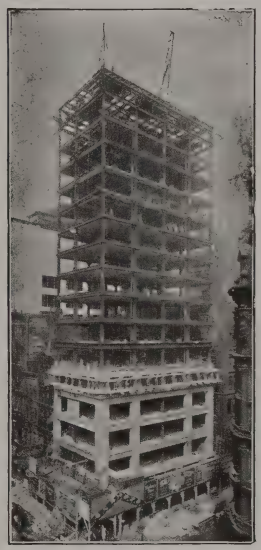
GEORGE E. FLOOD
PRINTER

Telephones
Oakland 1000
and 398

Commercial Job Printing of the highest grade at prices that are just right

May we serve you with what we sell?

4242 COTTAGE GROVE AVENUE



Hansell-Elcock Company

Structural Steel and Iron Works

Archer Ave. and 23rd Place
CHICAGO

COMMERCIAL BLUE PRINT CO.

218 Clark Street, (Opposite Post Office)
Phone Harrison 6310

BLUE PRINTS WHILE YOU WAIT

SPECIAL ATTENTION TO
ARMOUR STUDENTS

Statistics

Credentials for Advanced Standing were presented by students from the following Institutions:

Berlin Electro-Technical School	Berlin, Germany
Colorado Agricultural College	Fort Collins, Colo.
Dartmouth College	Hanover, N. H.
DePaul University	Chicago, Ill.
Drexel Institute	Philadelphia, Pa.
Highland Park College	Des Moines, Iowa
Kansas State Agricultural College	Manhatan, Kan.
McGill University	Montreal, Canada
Purdue University	Lafayette, Indiana
Royal Institute of Technology	Parma, Italy
Southern University	New Orleans, La.
St. Ignatius College	Chicago, Ill.
University of Chicago	Chicago, Ill.
University of Illinois	Champaign, Ill.
University of Cincinnati	Cincinnati, Ohio
University of Iowa	Iowa City, Iowa
University of Kansas	Lawrence, Kansas
University of New Russia	Odessa, Russia
University of Texas	Austin, Texas

EUGENE DIETZGEN COMPANY

Chicago New York San Francisco
New Orleans Toronto Pittsburg

LEADING INSTRUMENT MAKERS

QUICK SELLING

Tools, Supplies and Specialties

For Machinists, Iron Workers, Boiler Shops
Engineers, Firemen, Etc.

Write for Special Prices and Discounts to dealers.
144-page Stock List Free for the asking.

Black and Galvanized Sheets
Iron and Steel Bars
STRUCTURAL STEEL
Boiler Tubes, Rivets
Boiler and Tank Plate

In Stock
Immediate Shipments
Carloads or Less

SCULLY STEEL & IRON COMPANY

Ashland Avenue and Twenty-fourth Street

WILLIAM A. MAGIE Telephones Main 1074-1075 FRANK O. MAGIE

MAGIE BROTHERS

CYLINDER, ENGINE AND DYNAMO

OILS

Cup Greases, Boiler Compound, Cotton Waste
Use "Solidified" Palm Oil

155-57 NORTH CANAL STREET
CHICAGO

Statistics

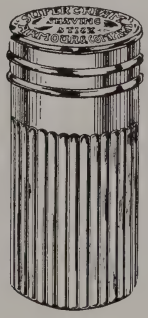
Summary of the attendance for the year 1909-1910

Seniors	66	Electrical Engineering	152
Juniors	139	Civil Engineering	150
Sophomores	140	Mechanical Engineering	102
Freshmen	214	Architecture	101
Special Students	23	Chemical Engineering	41
		Fire Protection Engineering	23
Total	582	Total	582

Students in the College of Engineering	582
Students in the Science Academy	121
Students in the Evening Classes	616
Students in the Summer Courses	201
Total	1,520
Deduct names counted twice	14
	1,506

SUPERCREAM SHAVING STICK

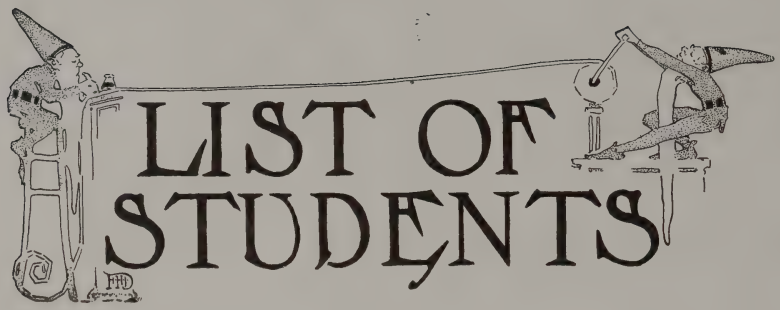
is selected by all discriminating shavers because it contains the superior qualities they all want and should expect in the soap they buy.



Supercream Shaving Stick

makes that rich, creamy lather that softens the beard quickly. It does not irritate the skin, and leaves a cool, clean, smooth effect after every shave. ¶ Packed in a nickeled box and distinguished by the name "SUPER-CREAM".

ARMOUR SOAP WORKS
Chicago : New York : London



LIST OF STUDENTS

Senior Class

Anderson, A. G.	C. E.
Baer, Walter	E. E.
Bailey, Clarence C.	E. E.
Baughman, I. N.	E. E.
Bergbom, A. L.	M. E.
Bolte, Edward Endicott	M. E.
Bowman, D. W.	Arch.
Bremers, Jr., Henry J.	E. E.
Buck, Glen W.	C. E.
Calvin, Reed	E. E.
Carlson, H. W.	M. E.
Chapman, Jr., Alfred B.	E. E.
Clark, Leslie D.	Arch.
Clarkson, Jr., Wm.	C. E.
Cole, V. E.	C. E.
Crocker, A. H.	M. E.
Deveney, Wm. J.	C. E.
Eckert, John M.	C. E.
Eliel, R. G.	C. E.
Gentry, Taudy T.	M. E.
Godfrey, F. Ozro	E. E.
Grenoble, H. S.	M. E.
Gunten, Tillman von	Arch.
Guthier, R. E.	C. E.
Hand, Henry, C.	C. E.
Hatman, Julius G.	M. E.
Henwood, Proctor E.	M. E.
Hoffman, R. J.	M. E.
Hotchkin, Everett	F. P. E.
Robertson, Alex	M. E.

DREXEL STATE BANK OF CHICAGO

DREXEL BANK BUILDING
Oakwood Boulevard and Cottage Grove Avenue

Capital, - $ 200 000
Deposits Over 2,000,000

EFFICIENT MANAGEMENT COURTEOUS ATTENTION
CONVENIENT LOCATION

Three per cent Interest Paid on Savings Accounts

ESTABLISHED 1872

TOOLS FOR EVERYBODY

AND EVERYTHING

INCLUDING

Tools for Woodwork, Forge, Foundry
and Machine Shop Work

Venetian Iron, Brass, Copper and Leather Work
Clay Modeling and Domestic Science

Drawing Instruments—Surveying Instruments

EVERYTHING IN HARDWARE

ORR & LOCKETT HARDWARE CO.

71-73 Randolph Street, Chicago, Ill.

Scientific Treatment for Boiler Waters

All steam users realize the necessity of treatment to remove scale, and prevent pitting and corrosion in boilers.

Treatment of the right sort prolongs the life of the boilers and effects great savings in fuel and repairs.

Dearborn Water Treatment is a scientific method of preventing scale formation, corrosion, and foaming by treating the feed water with preparations containing reagents for minerals which cause the trouble.

Gallon sample of water required for analysis.

DEARBORN DRUG & CHEMICAL WORKS, Chicago

Seniors—Continued

Robinson, P. C. ..... C. E.
Rosenberg, Joseph ..... E. E.
Rothwell, Richard F. ..... C. E.
Sabin, Milton R. ..... C. E.
Sachtelben, C. G. ..... Ch. E.
Salzman, Abraham L. ..... Arch.
Sawyer, Walter M. R. ..... E. E.
Schmieman, Oscar ..... M. E.
Schruber, John A. ..... M. E.
Schuette, Adolph J. ..... Ch. E.
Simpson, Dudley E. ..... E. E.
Smith, P. O. ..... M. E.
Sowards, Hugh ..... F, P. E.
Spencer, Jr., Chas. A. ..... M. E.
Stansel, Walter G. ..... E. E.
Steindler, Julius ..... C. E.
Stewart, John L. ..... C. E.
Stump, Dan M. ..... M. E.
Swanson, Frank A. ..... E. E.
Swatok, R. A. ..... C. E.
Shedden, John B. ..... Arch.
Tay, Carl D. ..... M. E.
Teal, Will W. ..... Arch.
Tiltz, Barney E. ..... E. E.
Toenjes, Lawrence ..... C. E.
Tomlinson, Harold E. ..... M. E.
Trujillo, Felix Amador ..... C. E.
Valentine, Herbert W. ..... C. E.
Verhoeff, Jack R. ..... C. E.
Wald, Max D. ..... C. E.
Walin, Herbert S. ..... C. E.
Wallace, Hugh ..... E. E.
Walsh, Raymond L. ..... E. E.
Howenstein, W. K. ..... C. E.
Jens, W. G. ..... E. E.
Kallis, Maurice ..... C. E.
Kellner, W. A. ..... C. E.
Kloman, R. S. ..... C. E.
Leavell, Richard A. ..... M. E.
Lettermann S. D. ..... C. E.
Livermore, Joseph D. ..... Arch.
Lowe, J. C. ..... Sp. Ch. E.
McCune, Jr., Sam ..... E. E.
MacEwing, Eugene D. ..... E. E.
Martin, Herbert W. ..... Ch. E.

Tailor to Armour Men

VIRGIL M. MACKEY

Cleaning, Dyeing, Pressing and Repairing

Phone Douglas 4166

3355 State Street CHICAGO

PENNANTS

For COLLEGES, FRATERNITIES, SCHOOLS AND GENERAL PURPOSES

Stitched — Printed — Lithotint

We are the ONLY Manufacturers of the Celebrated LITHOTINT PENNANTS
(See Illustrations)

We have stock designs for every course of study, as well as for every kind of college sport.
We can reproduce any design in correct colors and perfect detail.

Our illustrations are **not printed on, but dyed into the goods.** Write for samples and illustrated circular **today.**

College and Fraternity Novelty Co., 4348-50 Cottage Grove Ave., **Chicago**

KEUFFEL & ESSER CO.

OF NEW YORK

111 EAST MADISON ST., CHICAGO

ST. LOUIS - - - 813 Locust Street
SAN FRANCISCO, 48 and 50 Second Street
MONTREAL, Canada, 252 Notre Dame St., West

Drawing Materials
Mathematical and Surveying Instruments
Measuring Tapes

Seniors—Continued

Moyses, H. E. ..... E. E.
Munoz, Frederick J. ..... C. E.
Neville, W. J. ..... E. E.
Pashley, E. S. ..... Arch.
Pearce, Ruswell P. ..... C. E.
Pfaelzer, F. M. ..... F. P. E.
Pohlmann, E. F. ..... Ch. E.
Reynolds, J. C. ..... C. E.
Ruede, Eugene M. ..... E. E.
Sherwin, E. B. ..... E. E.
Smith, Monroe, A. ..... C. E.
Squair, Francis R. ..... Ch. E.
Steigely, Arthur C. ..... Arch.
Salisbury, Robert H. ..... Arch.
Thatcher, W. C. ..... E. E.
Thomas, W. E. ..... M. E.
Vynne, Eustace ..... C. E.
Wernick, F. E. ..... M. E.
Whitmore, Roy ..... E. E.
Young, D. A. ..... M. E.
Zeisler, L. ..... E. E.

Commencement

will soon be here. Have the ones from home stop at the **Hotel Warner.**

THE MANAGEMENT ALSO CATERS TO COLLEGE SOCIETY BANQUETS AND PARTIES

HOTEL WARNER

HARRY HILDRETH, Jr., Proprietor

33rd ST. AND COTTAGE GROVE AVE.

Telephone, Douglas 673

ABSOLUTELY FIRE-PROOF

One of the best equipped buildings with fire escapes in Chicago

320 Rooms EUROPEAN PLAN **240 Rooms with Private Bath**

Very reasonable rates for transient guests. Also special permanent and weekly rates. Room with private bath, $1.00 to $1.50 per day. Two and three room suites, with private bath, $12.50 to $17.50 per week. Long distance telephone in every room. Homelike, comfortable and refined. Best modern priced cafe in Chicago.

The Walinger Company

FINE PORTRAITS

by Photography

POWERS BUILDING, 156 WABASH AVENUE

Northeast Corner of Monroe Street

Official Photographers for "The Integral"

1905-1906-1907-1908-1909-1910

Junior Class

Alling, Harold, M. ..... F. P. E.
Ambrose, R. B. ..... M. E.
Anderson, Leonard C. ..... E. E.
Bajari, Wm. R. ..... Arch.
Beaudry, R. L. ..... Arch.
Beck, C. E. ..... M. E.
Beifield, H. A. Soph ..... Ch. E.
Bentley, Percy ..... Arch.
Binder, C. W. ..... C. E.
Bloomfield, Julius C. ..... E. E.
Boettcher, Ralph E. ..... E. E.
Booth, Herbert ..... Arch.
Bornstein, Hymen ..... Ch. E.
Bradford, P. L. ..... E. E.
Brant, Paul ..... Ch. E.
Bredlau, Albert E. ..... C. E.
Bristol, G. C. ..... C. E.
Brown, Lee E. ..... C. E.
Burke, Albert S. ..... C. E.
Butler, H. L. ..... C. E.
Byers, A. A. ..... M. E.
Canman, Elmer L. ..... M. E.
Casey, Martin J. ..... C. E.
Cheney, Howard L. ..... Arch.
Cleaver, T. G. ..... C. E.
Cummins, G. Fred ..... M. E.
Dalsey, Harry I. ..... Arch.
Daniels, Milton ..... F. P. E.
DeTar, DeLos ..... E. E.
Dobbie, E. C. ..... E. E.
Doering, R. C. ..... F. P. E.
Drew, Walter W. ..... E. E.
Eichenberg, Philip ..... E. E.
Emin, Gerson Herbert ..... C. E.
Emmons, Gilbert C. ..... E. E.
Erickson, Oscar R. ..... C. E.
Evans, Percy W. ..... E. E.
Fenn, J. G. ..... M. E.
Ferrenz, Firrell J. ..... C. E.
Fletcher, J. H. ..... E. E.
Friedman, R. N. ..... Arch.
Frodin, Rube S. ..... Arch.
Furst, George ..... Arch.
Gault, M. E. ..... E. E.
Geisler, Rupert J. ..... C. E.
Goldberg, Dave ..... M. E.

"MORSE" DRILLS

are made of best quality carbon or high speed steel in many styles and sizes.
No Better Drills Made. One Trial is Proof.
Also Reamers, Cutters, Chucks, Taps, Dies, Etc.
Send for Catalogue. Free to all.

MORSE TWIST DRILL & MACHINE CO.
NEW BEDFORD, MASS, U. S. A.

S. B. CHAPIN
F. D. COUNTISS
T. L. TURNER
WM. EWALD
IRA J. COUCH
O. P. COOKE

S. B. Chapin & Co.

Bankers and Brokers

Rookery Building, Chicago

Trinity Building, New York

Dress Suits to Rent **Tuxedo Suits to Rent**
Prince Albert Suits to Rent **Opera Hats to Rent**

T. C. SCHAFFNER

78 State Street, Room 27 Phones—Central, 4875. Res., Edgewater, 5818

Juniors—Continued

Goldberg, Isadore	E. E.
Graham, F. A.	E. E.
Gray, R. L.	E. E.
Green, G. Vernon	Ch. E.
Greengard, B.	Arch.
Griffiths, Francis H.	M. E.
Gugis, Kasmir	M. E.
Gustafson, B.	Arch.
Hall, C. D.	E. E.
Harris, Ralph C.	Arch.
Hay, Robert	E. E.
Heitner, W.	E. E.
Hills, Jr., Charles W.	E. E.
Hills, George B.	C. E.
Hooper, Wm. T.	Arch.
Hubschman, R. M.	E. E.
Hutton, H. K.	E. E.
Hynes, P. R.	C. E.
James, Garry B.	Ch. E.
Jensen, Raymond F.	C. E.
Johnson, H. S.	Ch. E.
Johnson, John B.	C. E.
Jones, H. W.	C. E.
Kellner, Otto R.	C. E.
Kiley, LeRoy D.	M. E.
Kinzel, Arthur J.	M. E.
Konicek, Jr., Frank	E. E.
Kroschner, W. F.	E. E.
Kurzon, Meyer W.	C. E.
Langstaff, H. P.	E. E.
Laskey, H.	C. E.
Lindsay, A.	Arch.
Llewellyn, H.	M. E.
Lohse, Alfred C.	E. E.
Lohse, A. W.	M. E.
H. F. Lotz	C. E.
McCague, J. A.	M. E.
McGuire, Wm. P.	E. E.
Mabbs, J. K.	E. E.
Mackenzie, T. J.	M. E.
Mandler, E.	C. E.
Marx, Charles H.	C. E.
Merriman, Harold	Arch.
Metz, Fred W.	F. P. E.
Miller, Philip F.	Ch. E.
Moore, W. W.	F. P. E.
Narozny, Joseph S.	C. E.

Pennants

PILLOWS EMBLEMS

We carry the largest stock in Chicago, of pennants for Armour and other leading and local Colleges, Universities and Schools. Special pennants to order. *Prompt Service - - Right Prices.*

Athletic Goods

Athletic Base Ball Uniforms and Supplies. Athletic Wear of all kinds. Uniforms for all sports.

Class Pins, School Pins, Fobs, Posters, Etc.

THE W. G. KERN CO.

Main Office and Salesroom
Northwestern University Building
31 DEARBORN STREET

Branch Office and Salesroom
University of Chicago
1304 EAST FIFTY-SEVENTH STREET

FURNISHERS OF CAPS AND GOWNS TO A. I. T.

W. M. R. FRENCH, Director N. H. CARPENTER, Secretary

The Art Institute Art School

OF CHICAGO

STUDENTS MAY ENTER AT ANY TIME

Drawing : Illustration : Sculpture : Painting
Designing : Architecture : Normal Instruction

SPECIAL SUMMER COURSES

Classes for Teachers and Children Saturdays
Evening Classes open both to men and women, held Monday, Wednesday and Friday evenings, from 7 to 9:30 o'clock

Illustrated information will be sent free on application
For further information, apply at the school office or address

RALPH W. HOLMES, Registrar, Art Institute, Chicago

PHONE HARRISON 482

THE FRANK E. SCOTT TRANSFER CO.

BAGGAGE AND PASSENGERS TRANSFERRED TO ALL PARTS OF THE CITY
Through Baggage Checks with Railway and Sleeping Car Tickets over every road out of Chicago Delivered to your Home or Office without any Extra Charge
TAXICABS, AUTOMOBILES, CABS AND CARRIAGES FOR HIRE
IT IS THE BEST SERVICE ANYWHERE

Prompt Service *Open Day and Night* *Courteous Treatment*

PHONE HARRISON 482

Juniors—Continued

Nelson, Arthur Wm.	E. E.
Newhouse, Arthur M.	E. E.
Odgers, Philip G.	Arch.
Oehne, Walter	M. E.
Packer, A. Herbert	E. E.
Parsons, Harry N.	M. E.
Paskiewiez, J. A.	E. E.
Paterson, J. E.	Arch.
Pettibone, Gerry D.	E. E.
Pirrie, Peter G.	Ch. E.
Peck, Winfield	M. E.
Ratkowski, Edward P.	C. E.
Robinson, J. Albert M.	M. E.
Rothwell, Paul A.	E. E.
Rowe, L. P.	Arch.
Saam, Carl F.	Arch.
Sackheim, Sol.	E. E.
Sailor, Homer G.	Arch.
Salomon, M. J.	C. E.
Sandahl, C. A.	C. E.
Schmidt, Emil J.	E. E.
Schmidt, Fred	C. E.
Schultz, Wm. E.	F. P. E.
Schwartz, Albert	Arch.
Shafer, Glenn A.	C. E.
Sieck, Herbert	Ch. E.
Sieck, Jr., Wm.	M. E.
Silva, C. J. da	C. E.
Simons, Louis	C. E.
Smalley, Ralph	Arch.
Smith, Edward J.	M. E.
Smith, S. H.	C. E.
Snow, C. A.	E. E.
Staufer, Joseph	M. E.
Steward, Jr., Wm. H.	M. E.
Strong, S. P.	Arch.
Szeszycki, I. L.	C. E.
Taylor, Clyde A.	Arch.
Tellin, W. G.	E. E.
Tobias, W. R.	C. E.
S. R. Todd	E. E.
Turley, Everett, W.	Ch. E.
Whitaker, Dwight A.	E. E.
Williams, Duvall	C. E.
Williams, L. L.	E. E.
Witte, Otto Ibert	E. E.
Zack, Raymond	C. E.
Zimmerman, C. L.	E. E.

It's what an engineer reads

that largely determines his degree of success. To keep in touch with the actual practice of the best engineers of the day and with the latest developments in his line of work, the young engineer *must* read the leading journal in his chosen field.

The Leading Engineering Journals are:

ELECTRICAL WORLD

The foremost authority of the world on all branches of electrical work.

Weekly Edition, $3.00. Monthly Edition, $1.00

THE ENGINEERING RECORD

The most valuable paper published for the civil and mechanical engineer.

Published Weekly, $3.00 a Year

ELECTRIC RAILWAY JOURNAL

The undisputed authority on the construction, operation and management of city and interurban railways.

Published Weekly, $3.00 a Year

Sample Copies on Request *Special Rates to Students*

Our Book Department can supply any Engineering Book Published

McGraw Publishing Co.

239 WEST 39 STREET : : : : NEWYORK

Sophomore Class

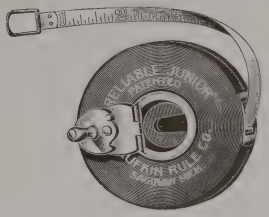
Abrahamson, A. F.	E. E.
Ahern, Arthur A.	F. P. E.
Anderson, George	C. E.
Anderson, Seymour	C. E.
Andrew, Jr., J. M.	E. E.
Anis, Albert	Arch.
Armstrong, Graham	E. E.
Armstrong, Richard C.	E. E.
Ashby, Harry H.	M. E.
Babcock, Henry A.	M. E.
Barlow, Simon	E. E.
Beach, Wm. E.	C. E.
Beck, Henry T.	Ch. E.
Beerbaum, Arthur J.	M. E.
Bell, W. T.	C. E.
Bjorge, Thomas	E. E.
Bohlander, Harvey A.	M. E.
Braun, Wm. T.	Arch.
Chandler, J. G. J.	C. E.
Chestnut, R. C.	M. E.
Claer, Rufus S.	C. E.
Clark, Ronald B.	C. E.
Coates, J. G.	M. E.
Collins, Charles W.	C. E.
Converse, Lawrence	Arch.
Curren, Earle L.	C. E.
Dewalt, Edward W.	Arch.
Dierking, Fred C.	C. E.
Dormitzer, Henry C.	Ch. E.
Drew, Harvey A.	E. E.
Drew, R. S.	M. E.
Dunn, Will C.	M. E.
Dyer, S. C.	Arch.
Enoshita, T.	E. E.
Erickson, George C.	E. E.
Farrelly, Leo	C. E.
Fjeldseth, John T.	C. E.
Fors, Adolph F.	M. E.
Gabler, Mathias	E. E.
Galbraith, Jack	C. E.
Gallagher, Vincent L.	E. E.
Garrison, Carl W.	C. E.
Gatling, J. L.	Arch.
Gilbert, F. B.	M. E.
Gilbert, H. W.	Arch.
Gilbert, Laura M.	Arch.

LUFKIN

MEASURING TAPES

are Standards of Accuracy, Durability and Workmanship. One of their many superior features is "Instantaneous Readings", save time a d eliminate errors.

Send for Descriptive Circular



THE LUFKIN RULE CO.

SAGINAW, MICH. U. S. A.

New York London, Eng. Windsor, Can.

Electric Portable Lamps

with their capability for directing their full brilliancy just where needed, while preserving the restfulness of shadow upon ceiling and walls, are wonderfully effective in lending cheerfulness and charm to the home.

Electric Shop carries the most extensive and exclusive line of electric portables and domes in the west.

Hundreds of odd and beautiful designs in Electric Cooking devices are exhibited. Electricity for cooking affords such a clean, quick and convenient method that its popularity is increasing daily.

You will find a visit intensely interesting.

Electric Shop

Jackson and Michigan Boulevards
CHICAGO

FAVOR, RUHL & CO.

Drawing Materials of Every Description

also **Artist's Supplies and Stationery Specialties**

298 and 300 Wabash Avenue CHICAGO, ILLINOIS

Sophomores—Continued

Goldstein, Joseph	Ch. E.
Grassely, Wm. J.	M. E.
Gundaker, George E.	Ch. E.
Hamilton, David	Arch.
Harlow, Stuart K.	E. E.
Hays, E. B.	Arch.
Hazen, F. G.	E. E.
Hess, Adolph	C. E.
Hoehn, J. C.	Ch. E.
Hoden, Edward C.	C. E.
Holtman, Dudley	C. E.
Irving, Geo. Fleming	M. E.
Kahn, Sidney	Ch. E.
Keachie, Paul L.	M. E.
Keuser, Matt	Arch.
Kincade, Lisle	Arch.
King, Edwin C.	Arch.
Kornfield, Leo	C. E.
Keause, A. A.	E. E.
Lambright, George E.	E. E.
Larson, Herbert	M. E.
Lawrence, M. F.	M. E.
Lawson, Harry C.	E. E.
Legel, John G.	Arch.
Leibrandt, Chas	E. E.
Leichenks, Peter W.	C. E.
Leviton, Morton I.	Arch.
Lowerenz, Martin C.	C. E.
Lewis, Jr., George	C. E.
Ligare, George	M. E.
Lindberg, Wm. A.	E. E.
Loewenberg, Max	C. E.
Lotz, Herbert F.	C. E.
Lutze, Raymond C.	C. E.
McAvoy, Walter	Arch.
McGinnis, Russel C.	Ch. E.
Machacek, Jacob	Arch.
Mack, Frank J.	C. E.
Malekow, Philip	Ch. E.
Malzen, M.	C. E.
Martin, W. G.	E. E.
Meade, G. Raymond	E. E.
Mesney, Rex	C. E.
Michael, John	E. E.
Moore, M.	M. E.
Markinsky, Chas. S.	E. E.

A. W. FISHER & COMPANY

COLLEGE AND FRATERNITY GOODS
STEEL AND COPPER PLATE

Engravers, Printers and Embossers

562 E. 50th Place, CHICAGO

"Speaking of Life Insurance"

The Policies Issued by the

Berkshire Life Insurance Company

OF PITTSFIELD, MASS.

are particularly adapted to professional men

Low Premiums High Values Annual Dividends

RUSSELL A. CALKINS, '97 Spl. Agt. WYMAN & PALMER, Gen. Agts.
100 Washington Street, CHICAGO

Sophomores — Continued

Ness, Charles	Ch. E.
Neufeldt, Ralph	C. E.
Newman, Joseph J.	Ch. E.
Niems, A. M.	C. E.
Noren, Harry E.	E. E.
Pagliarulo, Vincent	E. E.
Pasimansky, M. E.	E. E.
Peiser, Marcus	E. E.
Pinotek, Clement L.	Arch.
Pond, T. S.	E. E.
Porter, J. Clifton	M. E.
Powers, E. R.	Arch.
Radzin, C. L.	C. E.
Redlick, Jr., Rudolph	M. E.
Renaud, Eugene	E. E.
Roller, Louis H.	E. E.
Ross, Ralph R.	E. E.
Ruef, John E.	M. E.
Rundle, T. F.	C. E.
Rynders, George W.	M. E.
Schilling, Clarence A.	E. E.
Schmidt, J. Oscar	C. E.
Schneider, C. P.	Arch.
Schuler, Charles	E. E.
Scoville, Rollin C.	Arch.
Sincere, Edwin M.	Arch.
Smith, James H.	Arch.
Spindler, R. W.	C. E.
Strale, Nels W.	M. E.
Strawbridge, R.	M. E.
Strong, Paul A.	E. E.
Sturtz, H. K.	E. E.
Swanson, W. Robert	C. E.
Thomas, Thomas L.	Arch.
Todtman, H. G.	C. E.
Voight, A. L.	C. E.
Waldron, H. R.	Arch.
Wamsley, G. R.	C. E.
White, L. R.	E. E.
Williams, Guy E.	E. E.
Wolfe, Arthur W.	C. E.
Wolfe, Thomas E.	C. E.
Wong, Yuk	M. E.
Worster, H. M.	Arch.
Wustenfeldt, Rudolph W.	Arch.
Wyman, R. W.	M. E.

The STUDENT of TODAY *is the* SUPERINTENDENT of TOMORROW

We want BOTH to KNOW, USE and APPRECIATE

ARMSTRONG TOOL HOLDERS

Patented February 28, 1893

They make one pound of Tool Steel equal ten pounds used in Forged Tools. Do you want a Catalog?

Armstrong Bros. Tool Co.

"The Tool Holder People"

104 N. Francisco Ave. CHICAGO

Brass and Copper in Rolls, Sheet, Rods, Tubes and Wire. Brass and Copper Seamless Tubes.

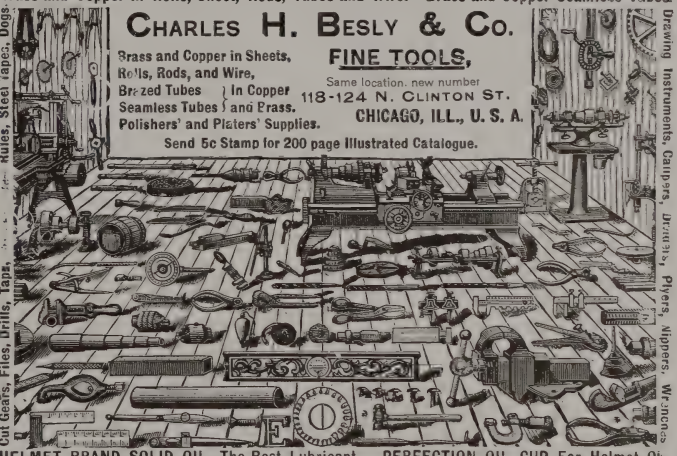
CHARLES H. BESLY & CO.

Brass and Copper in Sheets, Rolls, Rods, and Wire,
Brazed Tubes } In Copper
Seamless Tubes } and Brass.
Polishers' and Platers' Supplies.

FINE TOOLS,

Same location, new number
118-124 N. CLINTON ST.
CHICAGO, ILL., U. S. A.

Send 5c Stamp for 200 page Illustrated Catalogue.



HELMET BRAND SOLID OIL, The Best Lubricant. PERFECTION OIL CUP For Helmet Oil

A. Plamondon Mfg. Co.

SHAFTING, PULLEYS, HANGERS
GEARING, FRICTION CLUTCHES

12-24 North Clinton Street CHICAGO, ILL.

Freshman Class

Adams, George M.	E. E.
Agee, Robert E.	C. E.
Ahlvin, Martin V.	C. E.
Allen Clyde J.	Arch.
Allen, Mortimer P.	E. E.
Allen, Thomas	M. E.
Anschicks, Carl E.	M. E.
Appel, R. B.	E. E.
Arenberg, Albert L.	E. E.
Arnold, C. Henry	E. E.
Arp, Walter B.	E. E.
Badger, Orville	C. E.
Bischof, Jacob H.	Arch.
Bossman, Wm. F.	Arch.
Bradford, J. Dudley	M. E.
Brown, Clarence M.	Arch.
Brown, Paul K.	M. E.
Bunten, Joseph C.	E. E.
Burley, E. Roger	M. E.
Buttner, Wm. C.	Ch. E.
Catelani, George	E. E.
Certia, Magnus	E. E.
Chaund, Wm. H.	C. E.
Cole, R. M.	Ch. E.
Cooper, Howard	E. E.
Cooper, W.	C. E.
Copenhaver, Philip	E. E.
Cramer, August	C. E.
Culp, Carl B.	C. E.
Crow, Ralph M.	Arch.
Crowell, Jr., Chas. H.	E. E.
Curtis, Charles E.	M. E.
Curtis Marston	E. E.
Dailey, T. Bert	E. E.
Davis, Jerome R.	Arch.
Dixon, Harry L.	C. E.
Doege, Harry L.	E. E.
Donaldson, Robert C.	E. E.
Drew, Howard S.	M. E.
Deozeski, Donald	M. E.
Ehrman, Joseph	E. E.
Ermeling, Ralph W.	Arch.
Fallon, Emmett J.	C. E.
Faulkner, Chas. D.	Arch.
Fischel, Rudolph E.	E. E.
Fisk, Eugene M.	E. E.

ARMOUR
Institute *of* Technology
CHICAGO

The College of Engineering offers Courses in

MECHANICAL ENGINEERING
ELECTRICAL ENGINEERING
CIVIL ENGINEERING
CHEMICAL ENGINEERING
FIRE PROTECTION ENGINEERING
AND ARCHITECTURE

These courses are each four years in length and lead to the Degree of Bachelor of Science.

COMPLETELY EQUIPPED SHOPS AND LABORATORIES

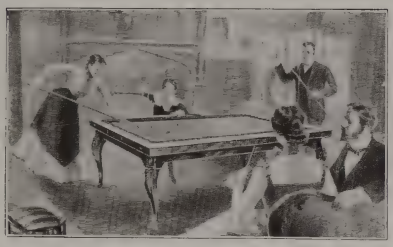
Summer Term, June 27th to August 5th, 1910

THE INSTITUTE BULLETINS

Will be sent upon application.

Freshmen — Continued

Fleming, Matthew J. ..... C. E.
Forbes, Howard P. ..... Arch.
Ford, George F. ..... C. E.
Fox, George ..... Arch.
Fryburg, W. F. ..... E. E.
Furray, Cornnell J. ..... Arch.
Furay, John J. ..... C. E.
Gallo, Eugene E. ..... M. E.
Gibbs, Archbald D. ..... Arch.
Goldberg, Jos. A. ..... Ch. E.
Goodnow, Daniel H. ..... C. E.
Graff, Walter W. ..... F. P. E.
Hahn, George A. ..... Ch. E.
Hallin, Edward L. ..... Arch.
Hamilton, Don ..... Arch.
Hansen, J. Henry ..... F. P. E.
Hartenbower, Milton ..... E. E.
Harvey, Turlington ..... M. E.
Hayes, Calvin ..... Arch.
Hayes, Jr., James ..... M. E.
Haynes, Wm. E. ..... Ch. E.
Hene, Bert B. ..... C. E.
Henningsen, Harry ..... Arch.
Harder, Milton ..... E. E.
Hetzller, J. Ralph ..... E. E.
Hodgkinson, Geo. R. ..... Arch.
Hoffman, E. Louis ..... E. E.
Holden, Jr., A. F. ..... F. P. E.
Hollowed, John ..... E. E.
Hopkins, Wm. T. ..... C. E.
Hoven, Roy ..... Ch. E.
Hubbell, Robert C. ..... Ch. E.
Hullquist, Elmer ..... M. E.
Herman, R. J. ..... Arch.
Ingram, H. D. G. ..... E. E.
Israel, Henry ..... C. E.
Jarvis, Brewster H. ..... M. E.
Johnson, P. O. E. ..... M. E.
Jones, Almon E. ..... Ch. E.
Kehr, Charles F. ..... M. E.
Kirkham, Robert F. ..... M. E.
Knaus, Peter J. ..... Ch. E.
Koch, Raymond J. ..... C. E.
Kuehn, H. R. ..... M. E.
Langill, Elwood O. ..... C. E.
Larson, Clifford M. ..... C. E.



Billiard and Pool Tables of

The Brunswick-Balke-Collender Co.

Used exclusively by the Billiard Experts of the World.
We build the best Bowling Alleys and have the latest and finest production in accessories of Billiard, Pool and Bowling Alleys.

The

Brunswick-Balke-Collender Co.

263-265 Wabash Ave. Chicago, Ill.

TYPEWRITERS

ALL MAKES

Rented at Lowest Rates
Allowing Rental to Apply
Machines ¼ to ½ Manufacturer's Prices

Telephone Main 3230 Telephone Rand 1648

TYPEWRITER EMPORIUM

TWO STORES

152 La Salle Street 92-94 E. Lake Street

W. F. PARKER, '05
FRATERNITY JEWELRY

A. W. FISHER, '09
INVITATIONS and PROGRAMS

CHAS. LAWRENCE. '05
ORCHESTRA MUSIC FOR ALL OCCASIONS

CHAS. W. HILLS, Jr., '11
PATENT ATTORNEY

Brochon Engraving Co.

271 MADISON STREET CHICAGO

College and Fraternity Jewelry, Pennants, Banners, Etc.

Stationery, Invitations, Dance Programs, Etc.

Freshmen—Continued

Larson, G. Barnard ..... Arch.
LaRue, Maurice ..... M. E.
Lautz, Jr., Wm. H. ..... Arch.
Lill, A. C. ..... E. E.
Livings, Frank T. ..... E. E.
Livingston, Hiram H. ..... Arch.
Lucas, John F. ..... C. E.
Lundberg, Joseph ..... C. E.
Lundblod, Claus David ..... Arch.
Lowenthal, David ..... Arch.
McDonald, Jas. E. ..... E. E.
McElligott, William P. ..... C. E.
McEvoy, Patrick ..... C. E.
Mann, Wm. C. ..... E. E.
Martin, Donald ..... Arch.
Martin, Edwin D. ..... Arch.
Marx, Walter L. ..... Ch. E.
Meyer, Philip ..... E. E.
Miller, F. B. ..... Ch. E.
Miller, Joseph ..... E. E.
Money, Clarence ..... M. E.
Mooney, Gerald F. ..... E. E.
Moore, Fontenelle ..... E. E.
Moore, Thos. ..... C. E.
Murphy, Frank T. ..... Arch.
Newman, Erwin ..... M. E.
Nisely, Ralph ..... M. E.
Opper, George L. ..... C. E.
Oye, Genso ..... M. E.
Perry, Lee Johnston ..... E. E.
Peters, Hugo C. ..... Arch.
Peters, Rudolph H. ..... Arch.
Philleo, Leigh M. ..... M. E.
Phillips, Bernard ..... C. E.
Pitts, Guy C. ..... C. E.
Platofsky, Ewd. C. ..... Ch. E.
Prescott, Jr., Patrick B. ..... Arch.
Reed, James ..... Ch. E.
Reeves, Allan G. ..... Arch.
Richards, A. L. ..... E. E.
Rietz, Elmer W. ..... E. E.
Robbins, Chas. E. ..... E. E.

GEORGE D. EDDY, President *CHAS. M. EDDY, Sec'y-Treas.*

Established 1865

R. M. Eddy Foundry Co.

GENERAL MACHINERY CASTINGS

Telephone North 5506 *372 WEST INDIANA STREET*

The Platt Iron Works Co.

DAYTON, OHIO

Manufacture Smith-Vaile Steam and Power Pumps for all services. Platt Turbine Pumps, Single and Multi-Stage. Air Compressors and Condensers. Stillwell Feed-Water Heaters.

SEND FOR CATALOGUE

Chicago, 311 Dearborn Street, JNO. T. SHAY, Manager

MOORE & EVANS

157 WABASH AVENUE

General Sporting Goods Line

¶ We are the Chicago Agents for the celebrated Harwood baseballs, guaranteed for eighteen innings of actual play.

	PAGE
Academy	217
Acknowledgements	212
Advertisements	247
A. I. E. E.	152
Alumni Association	162
Armour Engineer	213
Architectural Department	99
Atelier	100
Athletics	185
Assemblies	174
Assistants	33
Banquets	165
Basketball	200
Baseball	194
Board of Athletic Control	188
Board of Trustees	10
Camera Club	144
Civil Society	146
Chapin Club	142
Chemical Society	155
Classes	43
Commencement	175
Contents	8
Council, The	14
Dances	167
Dedication	4
Delta Tau Delta	111
Editorial	210
Eta Kappa Nu	123
Excutive Council	14
Fulcrum	214
Faculty	15
Faculty Club	139
Fraternities	105
Freshmen	91
Freshmen Smoker	169
Glee and Mandolin Club	182
Golf Tournament	203

	PAGE
Graduation Week	175
Greeting	5
History	37
In Memoriam	34
Integral	208
Institute, The	9
Juniors	69
Junior Week	179
Korhassian Carnival	176
Library	36
Nebraska Club	145
Night School	225
Officers of Administration	12
Omega Lambda	127
Pie Club	159
Phi Kappa Sigma	107
Radical X	132
Red Hots	229
Seniors	45
Smokers	171
Societies	131
Society	163
Social Calendar	164
Sophomores	83
Sphinx	140
Statistics	256
Stray Greeks	130
Students, List of	260
Summer Camp	78
Summer School	216
Sword Guards	41
Taft Day	204
Tau Beta Pi	117
Tennis	202
Toast, A	77
Track	190
Wearers of the "A"	186
Y. M. C. A.	160

THE MOSSLER CO.

50 JACKSON BOULEVARD

CLOTHES FOR YOUNG MEN

The importance of the *"right kind of clothes"* to the young man is best known by the young man himself.

That the *"Mossler Clothes"* have qualified as Absolutely Correct is shown in the fact that they are worn in all the leading Universities of the Country. They cost no more than the ordinary kind. They're ready for service, yet custom in design, make, and character. Marked values at 25 dollars with other grades to 40 dollars.

A call is the convincing argument.

The Mossler Co.

50 Jackson Boulevard ✕ ✕ **CHICACO**

HAMMERSMITH
ENGRAVING COMPANY
"THE COLLEGE PUBLISHERS"

Illustrators & Printers
of HIGH-GRADE

Annuals
Catalogues
Calendars
Bulletins

SEND IN YOUR SPECIFICATIONS AND GET OUR
SPECIAL COLLEGE ANNUAL PROPOSITION

116 Michigan Street, Milwaukee, Wis.